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DELAWARE P.S.C.

16 August 2013

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## VIA HAND DELIVERY

Ms. Alisa Bentley  
Commission Secretary  
Delaware Public Service Commission  
861 Silver Lake Blvd., Ste. 100  
Dover, DE 19904

Re: *PSC Docket Nos. 13-115*

Dear Ms. Bentley:

Enclosed please find the original and ten (10) copies of the Direct Testimony of Staff Witnesses Karl Pavlovic, David Peterson and Stephanie Vavro in the above-captioned docket. Copies have been provided to the service list in the manner indicated.

Respectfully submitted,

*James McC. Geddes/dlb*

James McC. Geddes

Enclosures

JMcCG:dlb

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Ms. Alisa Bentley  
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BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF )  
DELMARVA POWER & LIGHT COMPANY FOR ) PSC DOCKET NO. 13-115  
AN INCREASE IN ELECTRIC BASE RATES )  
AND MISCELLANEOUS TARIFF CHANGES )  
(FILED MARCH 22, 2013) )

DIRECT TESTIMONY OF  
STEPHANIE L. VAVRO  
ON BEHALF OF  
COMMISSION STAFF

AUGUST 16, 2013



**I. INTRODUCTION**

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**Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.**

A. My name is Stephanie L. Vavro. I am the Principal of Silverpoint Consulting LLC ("Silverpoint"). My business address is 1519 Whispering Woods Circle, Allentown, Pennsylvania 18106.

**Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE IN THE PUBLIC UTILITY FIELD?**

A. I received a Bachelor's degree in Mathematics, magna cum laude, in 1981 and a Master's degree in Management Science in 1984, both from Lehigh University.

Since 2009, my firm has completed projects on behalf of state regulatory commissions in areas that include distribution system reliability, mergers, and performance measurement. For example, Silverpoint worked on behalf of the Maryland Public Service Commission in the 2011 investigation of Potomac Electric Power Company (Pepco) reliability and service quality.

Before forming Silverpoint, I was a senior consultant with The Liberty Consulting Group for nearly ten years, where I worked on numerous utility reviews, typically focusing on quantitative analysis in areas such as capital spending, cost allocation, and performance incentive plans. Prior to that time, I was an energy analyst with Dickstein Shapiro, a Washington, D.C. law firm, where I focused on electric industry restructuring and other energy issues, often supporting efforts such as litigation and regulatory proceedings. My professional background also includes market analysis and strategic planning positions at large industrial and natural

1 resource companies including Westmoreland Coal Company and Bethlehem  
2 Steel.

3  
4 **Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY IN PUBLIC**  
5 **UTILITY RATE PROCEEDINGS?**

6 A. No.

7

8 **II. TESTIMONY PURPOSE AND SUMMARY OF CONCLUSIONS**

9

10 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

11 A. My appearance in this proceeding is on behalf of the Public Service Commission  
12 Staff ("Commission Staff").

13

14 **Q. PLEASE SUMMARIZE THE PURPOSE OF YOUR TESTIMONY IN THIS**  
15 **PROCEEDING.**

16 A. Silverpoint was asked to assist the Staff of the Delaware Public Service  
17 Commission ("Delaware Commission") in analyzing the reliability-related capital  
18 projects associated with Delmarva Power & Light Company's ("Delmarva" or  
19 "the Company") application for a rate increase. Specifically, we were asked to  
20 consider the necessity of these investments to comply with the service quality  
21 standard included in Regulation Docket No. 50, *i.e.*, a maximum System Average  
22 Interruption Duration Index ("SAIDI") of 295 minutes.

23

24 Silverpoint has also been asked to provide context and perspective regarding the  
25 Company's Reliability Enhancement Plan ("REP"), the Pepco Holdings, Inc.  
26 (PHI) corporate strategic initiative designed to, as its name implies, enhance and  
27 improve reliability at PHI's distribution companies.

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**Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS.**

**A.** My findings and conclusions, which I will discuss in more detail in the remainder of this testimony, are as follows:

- There was no engineering necessity for Delmarva's REP reliability-related capital projects in 2011 and 2012 in order to meet minimum Regulation Docket No. 50 standards, or to maintain SAIDI at recent levels.
- Delmarva Delaware's distribution plant additions in 2011 and 2012 were \$51.6 million and \$76.6 million, respectively. Of this \$128.2 million total, \$38.1 million, or approximately 30%, is associated with Delmarva's REP initiative. Reliability-related plant additions in 2011 and 2012 totaled \$101.4 million, of which nearly 35% was associated with REP projects.
- The size of Delmarva's five year budget for reliability-related projects under its REP initiative, \$170 million, is quite significant.
- From a policy perspective, there is no clear mandate to support spending for corporate reliability enhancement programs in Delaware as there is in other states.
- Stakeholders have not determined if increased capital spending to improve reliability is warranted or should be paid for by Delaware ratepayers, and as such the Company's request for recovery of REP reliability-related investments is premature.
- It appears that a significant portion of the Company's REP reliability-related plant additions is already included in 2012 year-end rate base.
- At least \$8.6 million of the Company's Construction Work in Progress (CWIP) request is associated with REP projects, as is approximately \$36 million of the Company's proposed Adjustment 26.

1 Q. HOW IS THE BALANCE OF YOUR TESTIMONY ORGANIZED?

2 A. In Section III, I offer some background and perspective on the Delmarva  
3 Delaware Reliability Enhancement Plan to provide the appropriate context for my  
4 later discussion. In Section IV, I discuss Delmarva's reliability-related capital  
5 projects, and in Section V, I discuss rate making treatment of REP reliability-  
6 related projects.  
7

8 III. DELMARVA RELIABILITY ENHANCEMENT PLAN  
9

10 Q. WHAT IS THE ORIGIN OF THE RELIABILITY ENHANCEMENT  
11 PLAN, OR REP?

12 A. Although PHI now refers to the REP as a strategic corporate initiative, it did not  
13 start out that way. Reliability improvement plans were first offered up by Pepco in  
14 2010 in response to ever-increasing pressure from regulators in Maryland and the  
15 District of Columbia ("DC") about the utility's on-going reliability problems and  
16 poor response to storms.<sup>1</sup> By July of that year, Pepco customers had experienced  
17 several extremely long outages due to storms, including those associated with  
18 "Snowmagedon," and public sentiment towards the company was decidedly  
19 negative.  
20

21 After receiving numerous customer complaints, on August 12, 2010 the Maryland  
22 Public Service Commission ("Maryland Commission") opened a new docket,  
23 Case No. 9240, to investigate the reliability of Pepco's electric distribution system  
24 and its quality of service. Pepco unveiled its REP for Montgomery County at a  
25 press conference two weeks later on August 27th, the same day it filed the plan in

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<sup>1</sup> In 2004, Pepco's reliability in Maryland had deteriorated significantly, and the company had up to that point made little progress in reversing the trend.

1 the Maryland Commission's new docket; a week later, Pepco filed another plan  
2 for its Prince George's County service area. By the end of September, Pepco had  
3 also filed a separate REP with the District of Columbia Public Service  
4 Commission ("DC Commission").<sup>2</sup> All three plans were quite similar in design,  
5 describing the actions the company intended to take to significantly improve  
6 service quality under six reliability programs — enhanced vegetation  
7 management, priority feeders, load growth, distribution automation, underground  
8 residential distribution (URD) cable replacement, and selective  
9 undergrounding/substation improvements.<sup>3</sup> Each REP was, however, tailored to  
10 the individual service territory, and reflected different specific projects and  
11 spending levels under each of the six programs.

12  
13 These original REPs were Pepco's attempt to convince regulators, government  
14 officials, and the public that it was serious about improving its reliability as  
15 evidenced by the magnitude of the company's promised investment — \$256  
16 million in Maryland and \$318 million in DC over five years.

17  
18 **Q. DID YOU HAVE AN OPPORTUNITY TO REVIEW PEPCO'S**  
19 **RELIABILITY ENHANCEMENT PLANS AT THAT TIME?**

20 **A.** Yes. In late 2010, Silverpoint and its partner, First Quartile Consulting, were  
21 selected by the Maryland Commission to conduct, as part of Case No. 9240, an  
22 investigation into Pepco's reliability and service quality, including its  
23 performance during storm-related outages. The scope of that investigation  
24 included a review of Pepco's reliability-related capital budgeting and spending,  
25 and an assessment of the adequacy of the Maryland REPs.

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<sup>2</sup> By this time, the DC Commission's investigative docket on Pepco reliability had been open for more than a decade.

<sup>3</sup> The majority of proposed REP spending, except for enhanced vegetation management, was capital.

1  
2 The team found that, in the five years leading up to the REP, Pepco Maryland had  
3 managed to fund non-discretionary capital projects on its distribution system, but  
4 relatively few of what could be considered discretionary ones. Non-discretionary  
5 distribution projects, as defined by Pepco, were those needed to maintain  
6 reliability, such as required load or customer-driven projects, or to replace aging  
7 infrastructure. As such, Pepco's pre-REP capital spending was adequate to  
8 maintain reliability at existing levels, but not to substantially improve it.  
9

10 The projects in each of the six REP reliability programs were specifically  
11 designed to enhance reliability. Our main criticism of the REPs at the time was  
12 that they had been assembled very quickly without the benefit of detailed  
13 analysis. We also noted that all of the reliability-related programs, except for  
14 enhanced vegetation management, would likely have little effect on reducing the  
15 duration of outages during major events, but were instead aimed more at  
16 improving everyday reliability as measured by, for example, SAIDI exclusive of  
17 Major Event Days (MEDs).  
18

19 **Q. ARE THE PROJECTS IN DELMARVA'S REP SIMILARLY DESIGNED**  
20 **TO IMPROVE RATHER THAN MAINTAIN RELIABILITY AT**  
21 **EXISTING LEVELS?**

1 A. Yes. The Company recently reiterated this interpretation of REP capital  
2 investment, describing the REP as a way to combine the efforts into one program  
3 the commitment that the Company is making to continuously improve its  
4 reliability performance.<sup>4</sup> This distinction between REP capital investments made  
5 to enhance reliability and “non-REP” capital investments made to maintain  
6 reliability at existing levels is an important one that I will return to later in my  
7 testimony.

8  
9 **Q. WHEN DID THE REP BECOME A CORPORATE STRATEGY?**

10 A. Within a few months of the release of the Pepco REPs, PHI decided to extend the  
11 six reliability-related programs across its entire footprint as a corporate strategic  
12 initiative. The writing on the wall was quite clear by late 2010 that PHI would  
13 soon need to make significant, measurable reliability improvements across  
14 Maryland. The state legislature was expected to pass the Maryland Electric  
15 Service Quality and Reliability Act (commonly referred to at the time as the  
16 “Pepco bill”), requiring regulators to implement specific reliability standards. By  
17 January 2011, the Maryland Commission had opened a rulemaking session and  
18 issued draft proposed standards. PHI understood that the new Maryland standards  
19 would mandate improvements at Delmarva as well as Pepco. By July 2011, the  
20 DC Commission had also implemented new, aggressive standards for System  
21 Average Interruption Frequency Index (SAIFI) and SAIDI. Extending the REP  
22 programs to cover all of PHI’s DC and Maryland utility operations at the time in  
23 light of the anticipated new mandates certainly made sense.

24  
25 **Q. WAS THERE CAUSE TO EXTEND THE REP CORPORATE**  
26 **INITIATIVE TO DELMARVA DELAWARE?**

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<sup>4</sup> Response to PSC-REL-8.

1 A. No. Under the standards in Regulation Docket No. 50 originally put in place in  
2 2006, Delmarva Delaware is required to maintain a SAIDI of 295 minutes or less.  
3 Those standards have not changed. That fact is evident in PHI's 2012 internal  
4 performance report.<sup>5</sup> The company devotes a separate section of the report to  
5 discussing its progress in meeting new jurisdictional reliability standards for  
6 SAIDI and SAIFI. Individual graphs for Pepco Maryland, Delmarva Maryland,  
7 and Pepco DC plot actual 2011 and 2012 performance against newly-mandated  
8 SAIFI and SAIDI requirements for 2012 through 2015 in Maryland and for 2013  
9 through 2016 in DC. Graphs for Atlantic City Electric compare actual  
10 performance to the company's "proposed" New Jersey requirements. Delmarva  
11 Delaware is conspicuously absent from the discussion.

12  
13 Despite the fact that, from a policy perspective, there was no clear mandate to  
14 necessitate spending for reliability enhancement programs in Delaware, the  
15 Company nonetheless opted to pursue the goal of considerably reducing its  
16 SAIDI.<sup>6</sup> That decision comes with a considerable price tag. Delmarva Delaware  
17 has spent nearly \$35 million in plant additions for REP reliability-related projects  
18 in 2011 and 2012, and plans to spend another \$170 million over the next five  
19 years.<sup>7</sup> This \$170 million figure is, by the way, remarkably close to the \$174  
20 million that Delmarva expects to spend on REP reliability-related plant additions  
21 in Maryland over the next five years.<sup>8</sup>

22

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<sup>5</sup> The December 2012 Performance Metrics and Report, provided as Attachment E to the response to AG-REL-19, pages 11-13.

<sup>6</sup> Delmarva's projected SAIDI and SAIFI through 2016 under its Delaware REP are shown in the response to PSC-CP-2.

<sup>7</sup> Responses to AG-REL-2 and AG-REL-3. REP feeder load relief is not included in the total.

<sup>8</sup> Response to PSC-REL-7. REP feeder load relief is not included in the total.



**IV. DELMARVA RELIABILITY-RELATED CAPITAL PROJECTS**

**Q. PLEASE SUMMARIZE DELMARVA'S DELAWARE DISTRIBUTION PLANT ADDITIONS.**

**A.** The Company's distribution plant additions for the years 2007 through 2012 are summarized in the following chart. Although the focus in this rate case is on 2011 and 2012 additions, I have included years 2007 through 2010 for informational purposes.

**Delmarva Delaware Distribution Plant Capital Additions**

<i>\$ Millions</i>	2007	2008	2009	2010	2011	2012
<b>Non-REP</b>						
Customer-driven	\$23.3	\$18.2	\$11.2	\$14.3	\$9.6	\$12.6
Load	1.4	4.7	13.4	6.4	0.5	0.5
Reliability	15.7	23.6	25.9	29.0	29.9	37.0
Total Non-REP	\$40.5	\$46.5	\$50.4	\$49.7	\$40.0	\$50.1
<b>REP</b>						
Reliability					\$10.3	\$24.2
Load Relief					1.3	2.3
Total REP					11.6	26.5
Total Plant Additions	\$40.5	\$46.5	\$50.4	\$49.7	\$51.6	\$76.6
Total Reliability-related Plant Additions	\$15.7	\$23.6	\$25.9	\$29.0	\$40.2	\$61.2

Source: Response to AG-REL-3, Attachments A and B.

Delmarva Delaware's total distribution plant additions in 2011 and 2012 were \$51.6 million and \$76.6 million, respectively. Of this \$128.2 million total, \$38.1 million, or approximately 30%, is associated with Delmarva's REP initiative. Reliability-related additions in 2011 and 2012 totaled \$101.4 million, of which nearly 35% was associated with the REP.

1 Customer-driven projects are those required by customers, such as new  
2 connections and street lights, or by government agencies, such as relocating plant  
3 for highway construction projects. Load projects are designed to maintain load-  
4 transfer and system continuity, such as installing new feeders or adding substation  
5 capacity. Reliability-related projects are designed to either maintain (non-REP) or  
6 enhance (REP) distribution system reliability. Replacing a duct bank at a  
7 Christiana substation is an example of a 2012 non-REP reliability-related project.  
8 Distribution automation work at Christiana substations is an example of an REP  
9 project.

10  
11 During discovery, the Company provided documents that list all of the individual  
12 projects that make up each category of REP and non-REP plant additions. The  
13 short description provided for each project gave us a general sense of the nature of  
14 the work performed.

15  
16 **Q. PLEASE CLARIFY THE DISTINCTION BETWEEN REP AND NON-**  
17 **PLANT ADDITIONS.**

18 **A.** As I noted earlier, there is a definite distinction between REP and non-REP  
19 projects. Non-REP projects are those completed in order to maintain reliability.<sup>9</sup>  
20 The Company designates capital projects aimed at improving its reliability  
21 performance as REP projects. The categories of reliability-related capital projects  
22 in Delmarva's REP are priority feeders, URD cable upgrades, distribution  
23 automation, feeder reliability improvements, conversions, and substation  
24 reliability improvements.<sup>10</sup> As a general matter, the type of work performed in an  
25 REP project would not otherwise be performed as a non-REP project in a future

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<sup>9</sup> All capital additions in 2007 to 2010, before the REP initiative began, are considered non-REP projects.

<sup>10</sup> The categories of reliability programs have changed slightly from the original Pepco REPs.

1 year.<sup>11</sup> Although these projects enhance system performance, they are not  
2 required to maintain the status quo.

3  
4 **Q. WHAT WAS THE PURPOSE OF YOUR REVIEW?**

5 A. Silverpoint was asked by Commission Staff to examine REP and non-REP  
6 reliability-related capital projects for the years 2011 and 2012, which are most  
7 relevant to the Company's current rate base request. We were asked to consider  
8 whether the level of spending was reasonable, and whether the investments were  
9 necessary to comply with the service quality standards included in Regulation  
10 Docket No. 50, *i.e.*, a maximum SAIDI of 295 minutes.

11  
12 **Q. DID YOU CONSIDER THE NECESSITY OF THE COMPANY'S**  
13 **SPENDING FOR REP LOAD RELIEF PROJECTS?**

14 A. Not at this time. As shown in the above chart, the Company's non-REP spending  
15 for load projects dropped off starting in 2011. It appears that Delmarva moved  
16 most of its traditional load work, specifically primary feeder load relief, under the  
17 REP umbrella. We do not have enough information about these projects to  
18 determine if they were truly meant to enhance versus maintain reliability. I expect  
19 that the Company will be able to clarify that point. In the meantime, we have  
20 limited the discussion of REP projects to those that the Company has specifically  
21 designated as reliability-related. We take no position at this time about the  
22 necessity of REP load relief projects, but reserve the right to do so at a later time.

23  
24 **Q. WHAT DID YOU CONCLUDE ABOUT THE COMPANY'S NON-REP**  
25 **RELIABILITY-RELATED PLANT ADDITIONS FOR THE YEARS 2011**  
26 **AND 2012?**

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<sup>11</sup> Response to PSC-REL-10.

1 A. The levels of capital additions for 2011 and 2012 were reasonably consistent with  
2 those of recent prior years, recognizing that some variability in yearly spending is  
3 normal due to the inherent lumpiness of capital projects. We examined the  
4 Company's descriptions of the non-REP reliability projects for the last six years  
5 and found the nature of 2011 and 2012 project work to be consistent with that of  
6 prior years.

7  
8 The following chart shows the Company's reliability-related spending compared  
9 to its SAIDI performance.

10 **Delmarva Delaware**  
11 **Reliability-related Plant Additions and SAIDI Performance**

	<b>Non-REP (\$ millions)</b>	<b>REP (\$ millions)</b>	<b>SAIDI (minutes)</b>
<b>2007</b>	15.7		197
<b>2008</b>	23.6		213
<b>2009</b>	25.9		190
<b>2010</b>	29.0		199
<b>2011</b>	29.9	\$11.6	192
<b>2012</b>	37.0	26.5	146

12  
13 Until recently, the Company has maintained SAIDI in the range of 190 to 200  
14 minutes, which is comfortably below the 295 minute maximum. The amount and  
15 type of non-REP project work in 2011 and 2012 are consistent with maintaining  
16 the system at status quo. We saw no evidence to suggest that these projects were  
17 not a necessary part of maintaining the reliability of the system at recent SAIDI  
18 levels, and presume these projects will be afforded traditional rate base treatment.

19  
20 **Q. WHAT DID YOU CONCLUDE ABOUT THE COMPANY'S REP**  
21 **RELIABILITY-RELATED PROJECT SPENDING IN 2011 AND 2012?**

22 A. Quite simply, we saw no engineering necessity for the REP reliability-related  
23 capital projects to maintain SAIDI at its status quo level.

1

2 **Q. HAS THE REP RELIABILITY-RELATED SPENDING HAD A POSITIVE**  
3 **EFFECT ON DELMARVA'S SAIDI?**

4 A. As the chart above illustrates, there has been a noticeable improvement in SAIDI  
5 performance since the REP reliability-related initiatives began. To be clear, we  
6 are not challenging the Company's selection of projects in its REP, or questioning  
7 whether those projects might have a positive effect. We recognize that PHI has  
8 seen positive improvement in other jurisdictions with similar increased REP  
9 spending. Our concern in this proceeding is that spending for such improvement  
10 comes without a clear mandate, which raises the question of whether those  
11 improvements should be paid for by ratepayers.

12

13 Keep in mind that the SAIDI exclusive of MEDs measure reflects everyday  
14 reliability, since the effects of major events are excluded. Reliability during blue  
15 sky days or minor events, which is roughly what SAIFI and SAIDI numbers  
16 represent, is quite different from reliability in significant storm-type events. The  
17 Company's REP investment is aimed at the former. To many customers,  
18 reliability means that when outages happen, they do not last for very long.  
19 Customer complaints often have more to do with a utility's ability to restore  
20 service promptly after a major event, and reducing the length of such outages is  
21 more of a system resiliency issue. There have been no Commission or  
22 government-sponsored studies, and right now we do not have sufficient  
23 information to opine as to whether Delaware ratepayers would be willing to pay  
24 for improvements in system reliability (or for system resiliency), and if so, to  
25 what extent.

26

27 **Q. IS THE CURRENT SAIDI STANDARD OF 295 MINUTES**  
28 **APPROPRIATE?**

1 A. We have not been asked to consider that question in this docket, although we note  
2 that the appropriateness of that SAIDI standard in Delaware is scheduled to be  
3 part of a subsequent Commission investigation examining the overall issue of  
4 infrastructure investments and reliability investments in particular.<sup>12</sup> Under the  
5 current standards, a SAIDI of 295 is an absolute maximum value above which  
6 point penalties may be imposed. No one actually expects the Company to operate  
7 at that level. The Delaware standards recognize that each utility must exercise its  
8 professional judgment in satisfying the standard based on its system and service  
9 territory. Delmarva was, until sometime in 2011, apparently comfortable  
10 operating its system to maintain SAIDI in the 200 range, which is well below the  
11 maximum.

12  
13 **V. RATE MAKING TREATMENT OF REP RELIABILITY-**  
14 **RELATED PROJECTS**  
15

16 **Q. THE COMPANY PROPOSES TO RECOVER ITS REP-RELATED**  
17 **INVESTMENT IN RATE BASE. IS THAT APPROPRIATE?**

18 A. By seeking rate base treatment for its REP expenditures now, the Company is  
19 essentially putting the cart before the horse. Given that the Company has no new  
20 performance standards to meet, there is little context or framework within which  
21 the parties in this proceeding can consider these investments. At this juncture, all  
22 we can likely agree upon is that the investments were made to further a corporate  
23 strategy.

24  
25 This lack of context for REP capital expenditures was the primary impetus behind  
26 the creation of Docket 13-152 to investigate Delmarva's proposed distribution

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<sup>12</sup> Order No. 8363 in PSC Docket No. 13-152.

1 infrastructure and reliability investments on a going forward basis. The size of  
2 those proposed investments is very significant. As summarized in the following  
3 chart, the Company plans to spend \$170 million in REP reliability-related  
4 initiatives over the next five years. In fact, over the five-year period, the Company  
5 plans to invest more capital in enhancing its reliability than in maintaining it.

6  
7 **REP and Non-REP**  
8 **Reliability-Related Capital Budget**

\$ Millions	REP Budget	Non-REP Budget
2013	\$32.3	\$41.1
2014	30.7	31.6
2015	34.4	28.8
2016	35.4	28.9
2017	37.4	26.0
Total	\$170.2	\$156.4

9  
10 Source: REP figures AG-GEN-1 Attachment D (excludes load relief)  
11 Non-REP figures from AG-REL-2 Attachment  
12  
13

14 **Q. CAN AN APPROPRIATE FRAMEWORK BE DEVELOPED IN TIME TO**  
15 **FAIRLY EVALUATE THE REP INVESTMENTS IN THIS RATE CASE?**

16 **A.** Possibly, depending on the progress that is made in Docket 13-152. The issues  
17 involved are by no means simple, and Delaware ratepayers have yet to weigh in  
18 on the debate. By way of perspective, keep in mind that in Maryland there have  
19 been several years of discussions among stakeholders about reliability issues, and  
20 that conversation is still on-going. PHI was recently required to file a report with  
21 the Maryland Commission regarding plans to accelerate short-term reliability

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF  
DELMARVA POWER & LIGHT COMPANY FOR  
AN INCREASE IN ELECTRIC BASE RATES  
AND MISCELLANEOUS TARIFF CHANGES  
(FILED MARCH 22, 2013)

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PSC DOCKET NO. 13-115

COPIES OF FOOTNOTE REFERENCES

IN FOOTNOTE NOS. 4, 5, 6, 7, 8, 11 AND 13



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## Stephanie L. Vavro

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Stephanie Vavro has thirty years of business experience, with more than fifteen years as a consultant specializing in regulated industries. As principal of Silverpoint Consulting, she has managed engagements for regulatory clients in the areas of distribution system reliability, mergers, and performance measurement. Prior to forming Silverpoint, she was a lead consultant in numerous utility reviews, typically focused on quantitative analysis in areas such as capital spending, cost allocation, and performance incentive plans.

### Directly Relevant Experience

#### *Principal, Silverpoint Consulting LLC (2008-present)*

- Engagement director/project manager for examination of Verizon's wholesale performance measures and performance incentive plan on behalf of the Massachusetts Department of Telecommunications and Cable.
- Project manager for engagement to provide expert testimony and analysis regarding the response by Western Massachusetts Electric Company to the October 2011 snowstorm.
- Project manager for an investigation of Verizon wholesale performance metrics incentive plan on behalf of the Pennsylvania Public Utility Commission.
- Project manager for investigation into the reliability and service quality of Potomac Electric Power Company (Pepco) on behalf of the Maryland Public Service Commission.
- Lead consultant on the legal/consulting advisory team providing support to the Maryland Public Service Commission in its review of the FirstEnergy-Allegheny Energy merger.
- Project manager for an audit of Duke Energy Ohio for the Ohio Public Utilities Commission, which involved an analysis of affiliate transactions and cost allocation methods and the company's compliance with corporate separation rules.
- Lead consultant for the audit of Duke Energy Indiana and Duke Energy Kentucky, with responsibility for the analysis of transactions under service company and affiliate agreements, including affiliate transaction accounting, cost allocation methods, and compliance with regulatory requirements.

#### *Senior Consultant, The Liberty Consulting Group (1999-2008)*

- Lead consultant in the audit of Duke Energy Carolinas for the North Carolina Utilities Commission, with responsibility for the analysis of transactions under service-company and affiliate agreements, including affiliate transaction accounting, derivation of fully distributed costs, cost allocation methods, and compliance with regulatory requirements.

- Lead consultant in the analysis and rebuttal of Tucson Electric Power's claim of damages under its settlement agreement, performed on behalf of the Staff of the Arizona Corporation Commission.
- Lead consultant in the focused audit of the affiliate relationships and transactions of NJR, New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities, with responsibility for the analysis of common corporate, business functions, and utility general services provided under service agreements, including transaction accounting and direct and allocated cost methods.
- Lead consultant in the audit of Nova Scotia Power, with a focus on affiliate transactions and cost allocation issues.
- Lead consultant in a review of the proposed acquisitions of UniSource (Arizona) and Portland General Electric (Oregon), focusing on issues of utility financial insulation, governance, service reliability, access to information, and community presence.
- Lead consultant in a review of Commonwealth Edison's rate case filing on behalf of the Illinois Commerce Commission, focusing on the company's capital spending programs.
- Lead analyst in reviews of Verizon's wholesale performance metrics and performance incentive plans for the District of Columbia Public Service Commission, the Maryland Public Service Commission, the Virginia State Corporation Commission, and the New Jersey Board of Public Utilities.
- Lead analyst in the audit of Qwest's performance measures and performance assurance plans for 13 states in the Qwest operating region.
- Consultant on an investigation of Ameritech-Ohio policies, procedures, and compliance with service quality performance requirements under Ohio's Minimum Telephone Service Standards, conducting analysis of service quality performance measures and penalty payments.
- Lead consultant in the audit of BellSouth's performance measures and performance assurance plan for the Florida Public Service Commission.
- Consultant on audits of affiliate relationships and transactions of SJI, South Jersey Gas and affiliates, and of NUI Corporation, NUI Utilities and affiliates, for the New Jersey Board of Public Utilities.
- Consultant on audit of affiliate relations standards for four New Jersey electric utilities on behalf of the New Jersey Board of Public Utilities, leading the examination of cost allocation issues.
- Analyst supporting work on divestiture and a rate case settlement with Public Service of New Hampshire on behalf of the New Hampshire Public Service Commission.
- Analyst supporting engagement to review Delmarva Power & Light's restructuring plan and in engagement to review Potomac Electric Power Company's application to auction its generation assets and its subsequent settlement proposal.

### ***Independent Consultant (1998)***

- Sub-contractor to Reed Consulting Group in its administration of the divestiture of GPU's fossil and hydro generating assets.

### ***Dickstein Shapiro (1994-1998)***

- Energy analyst at a Washington, DC law firm with primary emphasis on industry restructuring and related policies, issues, and trends. Projects included an analysis of alternatives to PJM pool restructuring, an analysis of issues surrounding nuclear generation in the Northeast, and support for utility/coal company litigation and arbitration.

## **Other Experience**

### ***Westmoreland Coal Company (1991-1993)***

- Marketing research manager for a \$400 million coal and energy company. Market research responsibilities included development of coal price forecasts, utility market analysis, SO<sub>2</sub> compliance analyses, and support of marketing and business development efforts.

### ***Ingersoll Rand Corporation (1988-91)***

- Analyst assigned to company's mining and construction equipment division, focused on development of marketing-related information system applications.

### ***J.H. Cohn (1987-88)***

- Consultant with large regional accounting firm, focused on marketing and business-related software implementation and development.

### ***Bethlehem Steel Corporation (1981-87)***

- Analyst for a \$100 million coal and natural resource division, with a key role in developing a market-driven strategic direction and effectuating business turnaround through market research, development of strategic and business plans, and business development.
- Analyst in a major steel corporation research department supporting corporate and R&D projects, which included joint venture feasibility, scheduling analysis to increase productivity and flexibility at a coke oven facility, and interpretation of engineering test data.

## **Education**

M.S., Management Science, Lehigh University, 1984

B.A., Mathematics, magna cum laude, Lehigh University, 1981

PSC DOCKET NO. 13-115  
DELAWARE PUBLIC SERVICE COMMISSION STAFF  
FOLLOW UP SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No. : PSC-REL-8

Please refer to AG-REL-3 Attachment A and Attachment B.

- (a) Please explain what distinguishes a project that the company identifies as non-REP (Attachment B) versus REP (Attachment A).
- (b) Please explain how the company's project identification, planning, selection, and budgeting processes differ for non-REP versus REP projects.
- (c) Please explain whether any of the REP projects shown for (a) 2012 and (b) 2013 were required to maintain reliability at the levels as measured by Delaware SAIDI in the 2008-2011 time period
- (d) If 2012 non-REP projects were completed in 2012 but the 2012 REP projects had been delayed for one year, what effect would it have had on the ability of the company to maintain system reliability for Delmarva Delaware customers at historical 2008-2011 SAIDI levels?
- (e) Please explain how Delmarva priority-ranks the potential projects within each of the programs in the REP (e.g., priority feeds, URD).
- (f) For each project on Attachment A and Attachment B, please provide a paragraph containing a more detailed description beyond the Short Description shown in the spreadsheets.

RESPONSE:

- a. The REP is a way to combine the efforts into one program that discuss the commitment that the Company is making to continuously improve its reliability performance. The REP is an integral part of the Company's overall expansion-related efforts. REP work is identified based on the following work criteria, Priority Feeder Upgrades, Underground Residential Distribution Cable Upgrades (URD), Distribution Automation, Feeder Reliability Improvements, Conversions, Substation Reliability Improvements, Feeder Load Relief. Non-REP projects are comprised of all other work.
- b. Reliability budget estimates are developed in the following manner:
  - 1. Emergency work - the estimates are based on historical trends for similar activities.
  - 2. Priority feeder and other Commission ordered activities - the budget is based on the amount of work ordered by the Commission and the average cost of performing the work.

3. Infrastructure replacement and upgrades – the budget is based on the level of activity projected to be performed over the five year period and either average historical costs or standard estimating units for each individual activity.

Throughout the year, if changes to the level of work are identified, these changes are discussed and approved at monthly budget coordination meeting. However, the budget is not modified.

- c. All of Delmarva Power's reliability programs are designed to support the objective to maintain a minimum (and improve upon wherever possible) performance level of 295 minutes as measured by the System Average Interruption Duration Index (SAIDI) in accordance with paragraph 4.3 of the Electric Service Reliability and Quality Standards set forth in Regulation Docket No. 50.
- d. Both REP and Non-REP projects can change from a timing and schedule standpoint. Delmarva maintains its performance and will complete all work necessary to maintain system reliability. The ability to maintain system reliability is dependent on the total work performed and not any one project. Therefore, an analysis that looks at the impact of delaying an individual project has not been performed.

Each of these categories is managed by distinct groups that plan and schedule their work to meet the timeline established when the budget was developed. For example, a project that is necessary to be in service prior to the beginning of the warm weather season will be engineered in a way that will allow sufficient time to be constructed prior to July 1. Vegetation management is planned to inspect and trim the overhead system on a two year schedule. Therefore each year half of the system is trimmed. Load growth is planned by the System planning group. They base their plans on historical load growth and prospective new growth within each substation geographic area. Feeder improvements and URD cable replacement are based on historical reliability performance of individual feeders and, like priority feeders, they are inspected and corrective actions identified. Distribution automation plans are developed based on historical reliability performance within an area and identification of feeder groups that can be combined to form an automation plan for load transfers.

- e. The priorities for performing each project are based on available resources to design the projects, coordination with other projects that have fixed completion dates and permitting requirements. These projects are scheduled to be performed during the year and schedules can change to accommodate other projects that need to be completed by specific dates, such as customer connections or load projects needed prior to high load periods.
- f. See PSC-REL-8 Attachments A and B.

Respondent: Michael W. Maxwell

PSC DOCKET NO. 13-115  
ATTORNEY GENERAL OF THE STATE OF DELAWARE  
FIRST SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No.: AG-REL-19

Provide all studies, analyses, evaluations, assessments, reports, and documents prepared by or on behalf of the Company during the last five years for the purpose of evaluating the Company's reliability performance. Provide all supporting workpapers and source documents in electronic form, with all spreadsheet links and formulas intact, source data used, and explain all assumptions and calculations used. To the extent the data requested is not available in the form requested, provide the information in the form that most closely matches what has been requested.

RESPONSE:

Please see the attachments:

- Attachment A – 2008 Performance Metrics and Report
- Attachment B – 2009 Performance Metrics and Report
- Attachment C – 2010 Performance Metrics and Report
- Attachment D – 2011 Performance Metrics and Report
- Attachment E – 2012 Performance Metrics and Report

Respondent: Michael W. Maxwell



## ***Asset Management***

### ***Asset Performance & Reliability***

#### **December 2012 Performance Metrics and Report**

***January 25, 2012***

Jurisdictional Reliability Performances (Current Year vs. Last Year) - By Mandated Jurisdictional Exclusive Criteria - Jurisdictional View

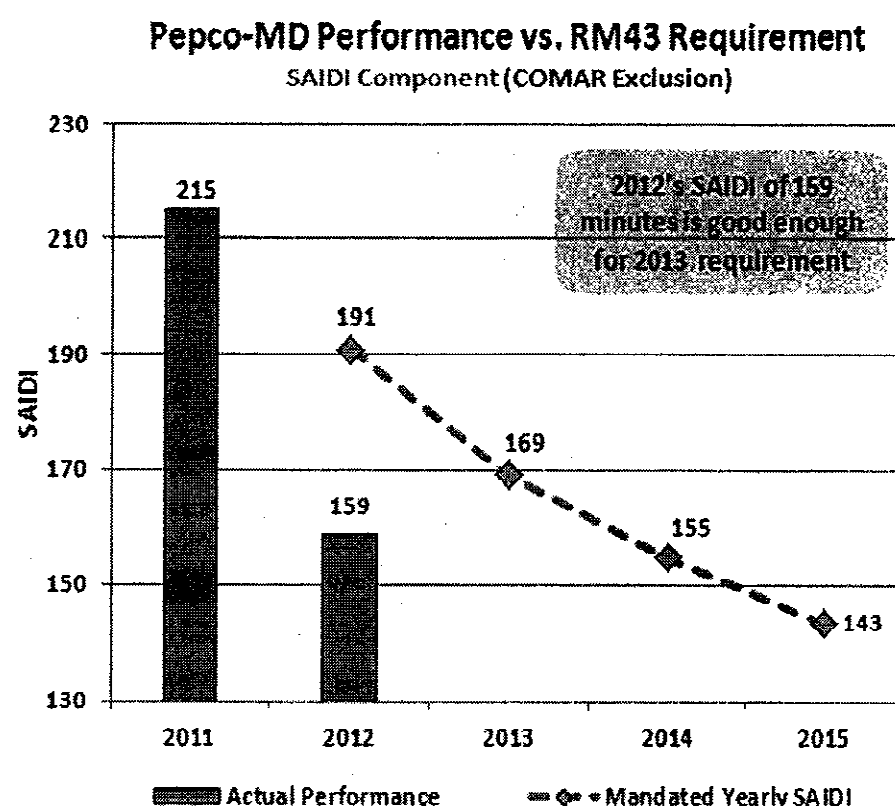
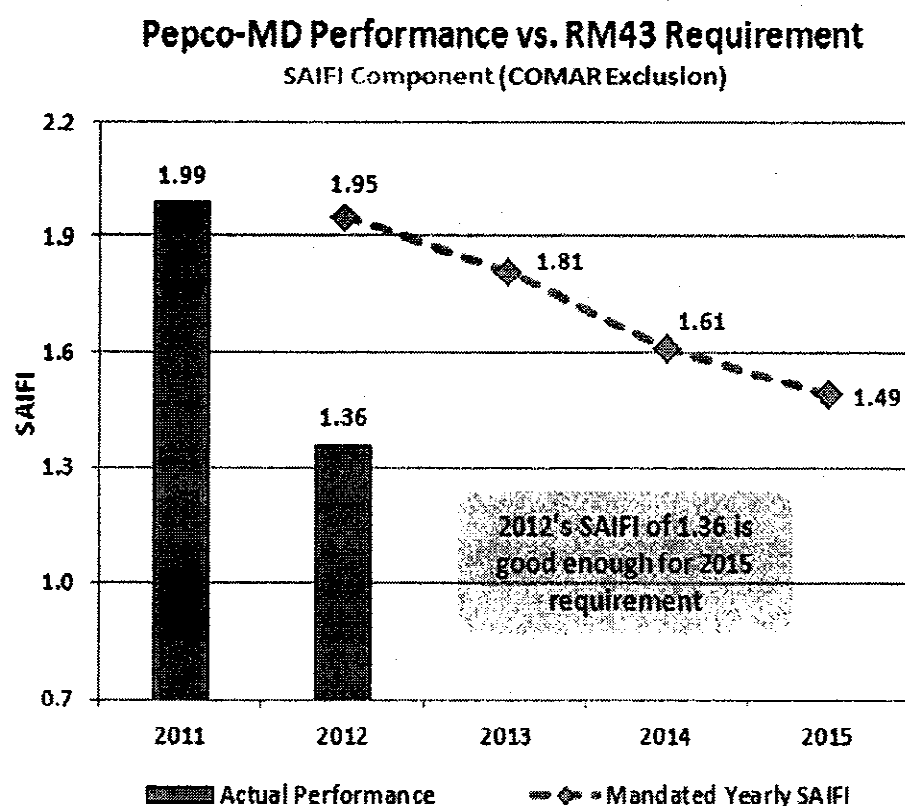
Jurisdiction	SAIFI Performance & Requirement									SAIDI (or CAIDI *) Performance & Requirement								
	2011		2012		2012 vs 2011		2012 Target			2011		2012		2012 vs 2011		2012 Target		
	Perf.	Rank	Perf.	Rank	Imp.	Rank	Mandate	Status	Rank	Perf.	Rank	Perf.	Rank	Imp.	Rank	Mandate	Status	Rank
ACE - New Jersey	1.76	3	1.45	4	-18%	4	1.71	-15%	3	110 *	n/a	107 *	n/a	-3%	5	144 *	-26%	3
Delmarva - Maryland	2.42	5	1.69	5	-30%	2	1.77	-4%	4	356	4	190	4	-47%	1	195	-3%	5
Pepco - Maryland	1.99	4	1.36	3	-32%	1	1.95	-30%	1	215	3	159	3	-26%	2	191	-17%	4
Delmarva - Delaware	1.41	2	1.14	2	-19%	3	n/a	n/a	n/a	192	2	146	1	-24%	3	295	-50%	1
Pepco - Dist of Columbia	1.19	1	1.01	1	-15%	5	1.21	-16%	2	168	1	155	2	-8%	4	242	-30%	2

\* CAIDI as the measuring Unit...

## Several Other views on Jurisdictional Performances

### Pepco-MD

In Pepco-MD, SAIFI in 2012 is improved by an extremely large 0.63 or 32% over 2011. SAIDI is improved by 56 minutes or 26%. Pepco-MD's SAIFI in 2012 is actually good enough to be even in compliance to meet the tough RM43's SAIFI requirement 3 years down the road (Pepco-MD's RM43 SAIFI requirement in 2015 is 1.49). Also, if we keep the level of 2012 SAIDI performance and carry that into next year, it would still be in compliance next year (Pepco-MD's RM43 SAIDI requirement in 2013 is 169 minutes).

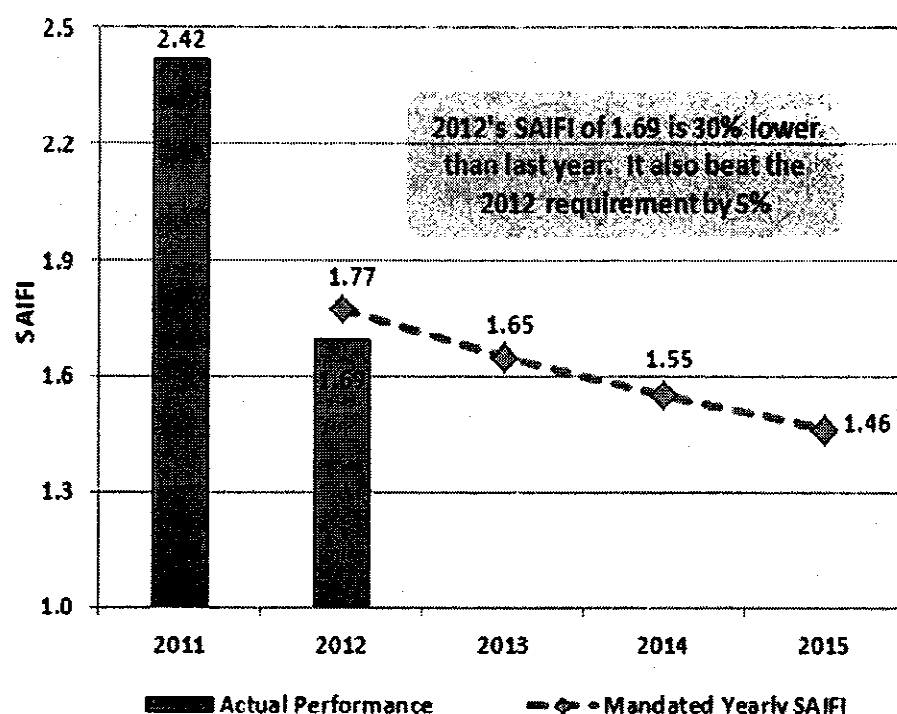


### DPL-MD

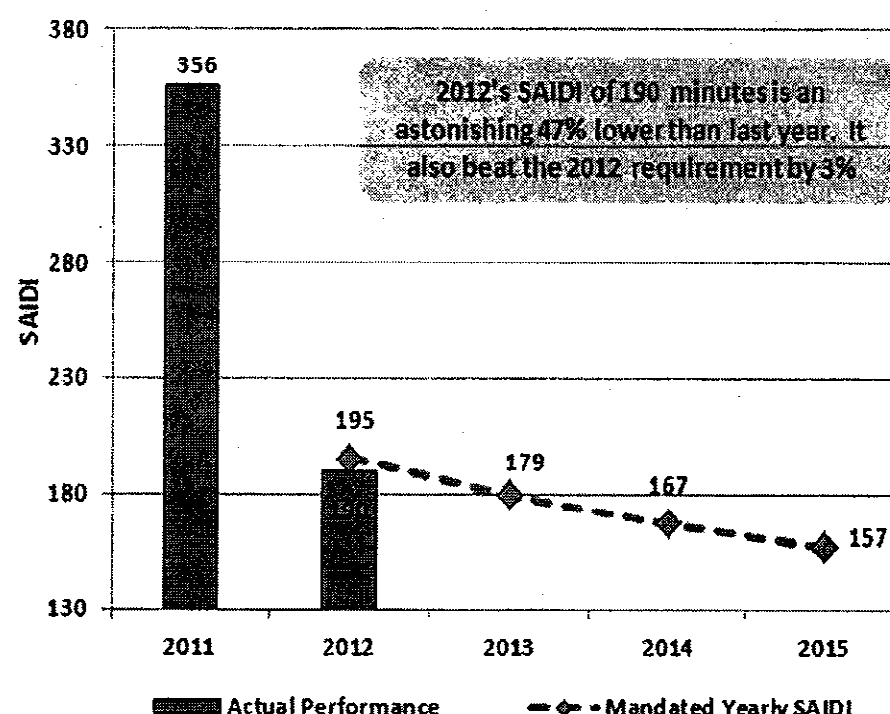
In DPL-MD, SAIFI in 2012 is improved by an even larger 0.73 or 30% over 2011. SAIDI is improved by an astonishing 166 minutes (close to 3 hours!) or 47%. Given the large gap last year, it has been a big achievement for DPL-MD to meet the RM43's 2012 SAIFI and SAIDI targets by comfortable margin. The prorated targets which are not addressed here was not met for legitimate reasons (see page 24 for details). There are still enough challenges in future years; DPL-MD needs to continue to improve their performance in order to meet the coming yearly SAIFI and SAIDI Standards.



**Delmarva-MD Performance vs. RM43 Requirement**  
SAIFI Component (COMAR Exclusion)



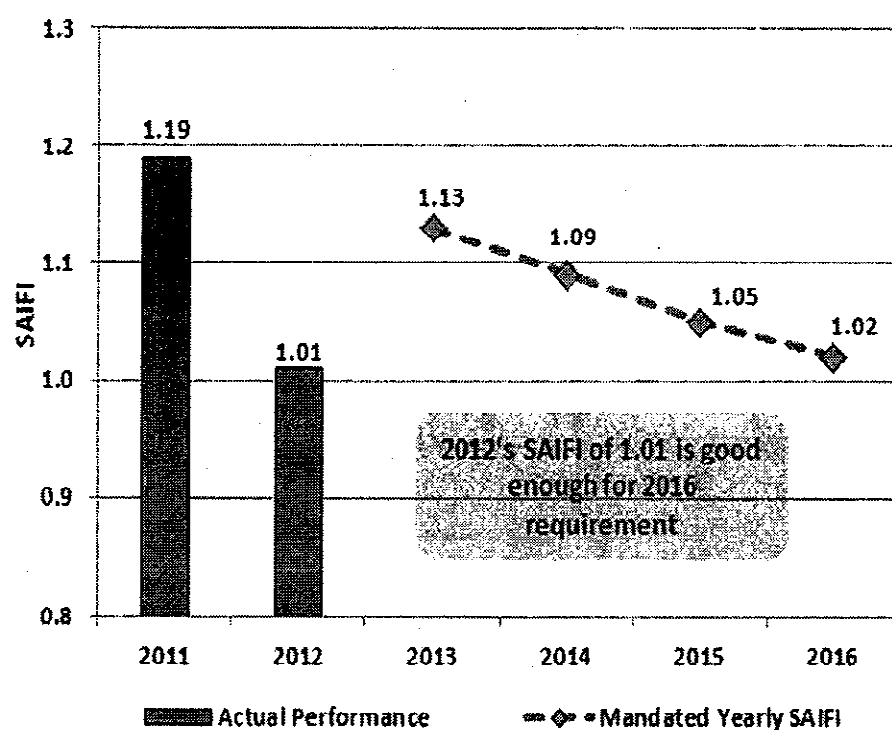
**Delmarva-MD Performance vs. RM43 Requirement**  
SAIDI Component (COMAR Exclusion)



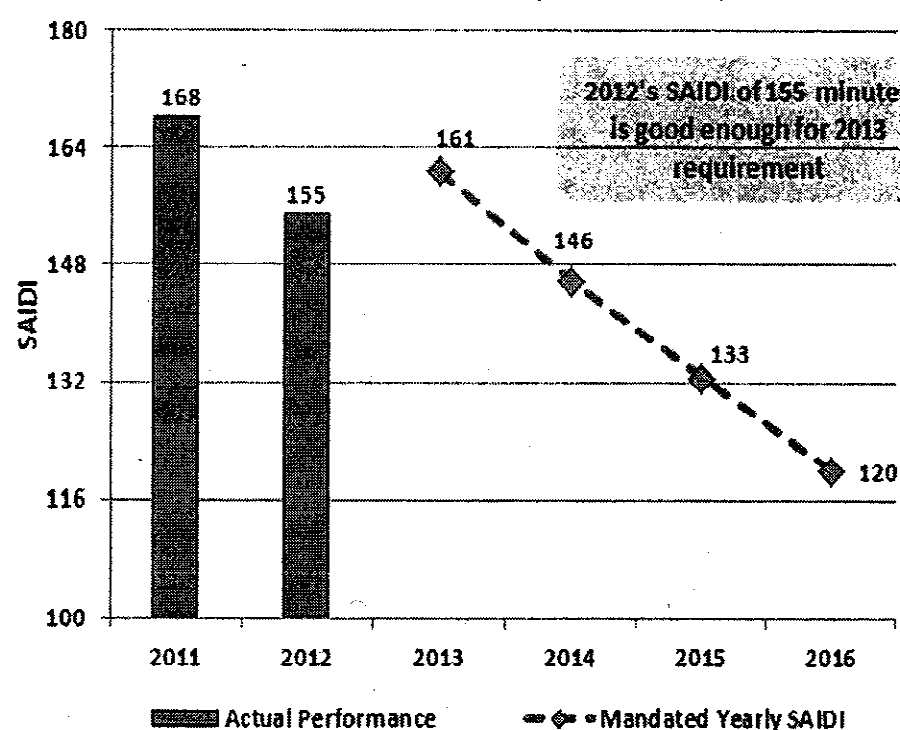
### Pepco-DC

In Pepco-DC, SAIFI in 2012 is improved by 0.18 or 15% over 2011. SAIDI is improved by 13 minutes or 8%. Pepco-DC's SAIFI in 2012 is actually good enough to be even in compliance to meet the DCMR SAIFI requirement 4 years down the road (Pepco-DC's SAIFI requirement in 2016 is 1.02). Also, if we keep the level of 2012 SAIDI performance and carry that into next year, it would still be in compliance next year (Pepco-DC's SAIDI requirement in 2013 is 161 minutes).

**Pepco-DC Performance vs. DCMR Requirement**  
SAIFI Component (MSO Exclusion)

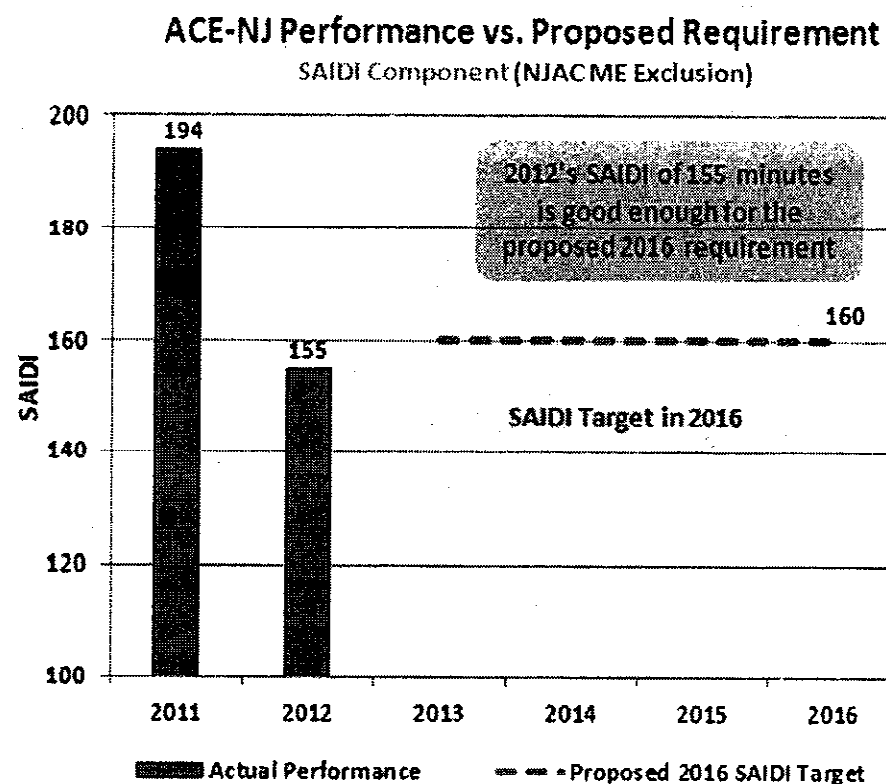
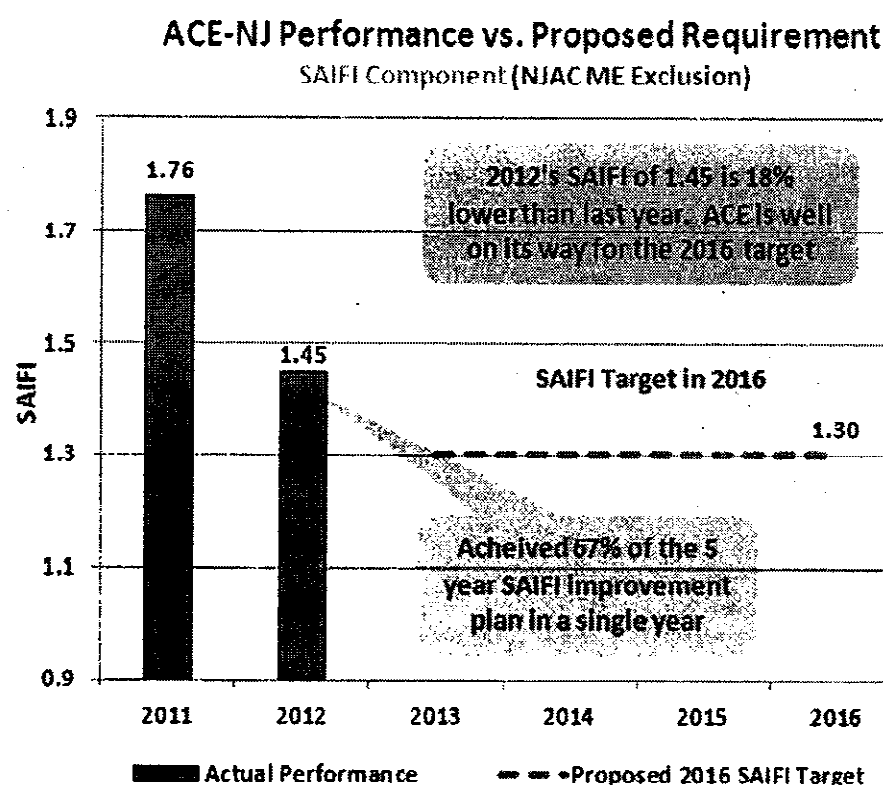


**Pepco-DC Performance vs. DCMR Requirement**  
SAIDI Component (MSO Exclusion)



### ACE-NJ

In ACE-NJ, SAIFI in 2012 is improved by a large 0.31 or 18% over 2011. SAIDI is improved by 39 minutes or 20%. ACE-NJ's proposed SAIFI target in 2016 is 1.30, with the current pace in progress, we are confident that ACE-NJ will meet the self-imposed SAIFI target sooner than 2016. ACE-NJ's proposed SAIDI target in 2016 is 160 minutes. ACE-NJ's SAIDI in 2012 is actually good enough to meet the 2016 targets already.



### Area of Opportunities

Despite the outstanding progress made during 2012, we estimate PHI companies remain as 3<sup>rd</sup> quartile or 2<sup>nd</sup> Quartile status at best (which is a far cry from solid 4<sup>th</sup> quartile status in 2011 and prior years) among the utility industry based on the latest IEEE reliability performance survey. We have successfully crossed the first hurdle, but there are still many more challenges on the road if we are to pride ourselves among the industry performance leaders. The next step will be more difficult as we are certain to face some degree of diminishing return as most of the low hanging fruits were harvested already. Some of the areas, at least from statistic point of view, that appear easier to tackle are listed below.

- Feeder Lockouts still remain as an area of concern. It is the top SAIFI and SAIDI contributor at PHI (49% of the PHI SAIFI and 30% of PHI SAIDI were produced by feeder lockouts). Pepco has the most opportunity to improve on this front – 52% of their 2012 SAIFI and 34% of their 2012 SAIDI were caused by feeder lockouts).
- Top 20 SAIDI Days at each PHI Company at Storm Normalized Days – those top outage days while accounted for only 5.6% of the yearly available days, they nonetheless contribute to 27% of the PHI system SAIFI and an astonishing 42.5% the PHI system SAIDI (see page 6 for details). If we can more efficiently allocate our resources during those top SAIDI days, the system indices, particularly for SAIDI can be further reduced.
- Centreville and Northeast remain as the Least Reliable Area – Despite of the tremendous progress made during 2011, these two districts still ranked as the area with the highest SAIFI and SAIDI among the 12 districts in PHI since the tracking of reliability performances. Move them from the bottom tier in the near future should have a pleasant affect not only to PHI's overall reliability performance, but will certainly please the customers there.
- Outage caused by Equipment Failure – They are responsible for the most PHI system SAIFI and SAIDI, accounted for 28% in 2012 for both SAIFI and SAIDI. Pepco area seems to have the most severe equipment failure rate (33% compared to 27% at DPL and 21% at ACE). The most frequent equipment failure types during 2012 were cables at Pepco, Bay and New Castle, whereas ACE has cutouts as their most impacting equipment failure type.

PSC DOCKET NO. 13-115  
DELAWARE PUBLIC SERVICE COMMISSION STAFF  
INITIAL SET OF CONSTRUCTION PROGRAM DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

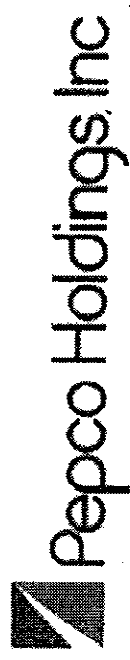
Question No.: PSC-CP-2

For the next five years provide the forecasted reliability indices identified above.

RESPONSE:

Delmarva has not performed reliability forecasting requested. See the attached Reliability Model, PSC-CP-2 Attachments A-C, and refer to the explanation in PSC-CP-3.

Respondent: Michael W. Maxwell



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# **DPL DE Reliability Forecasts**

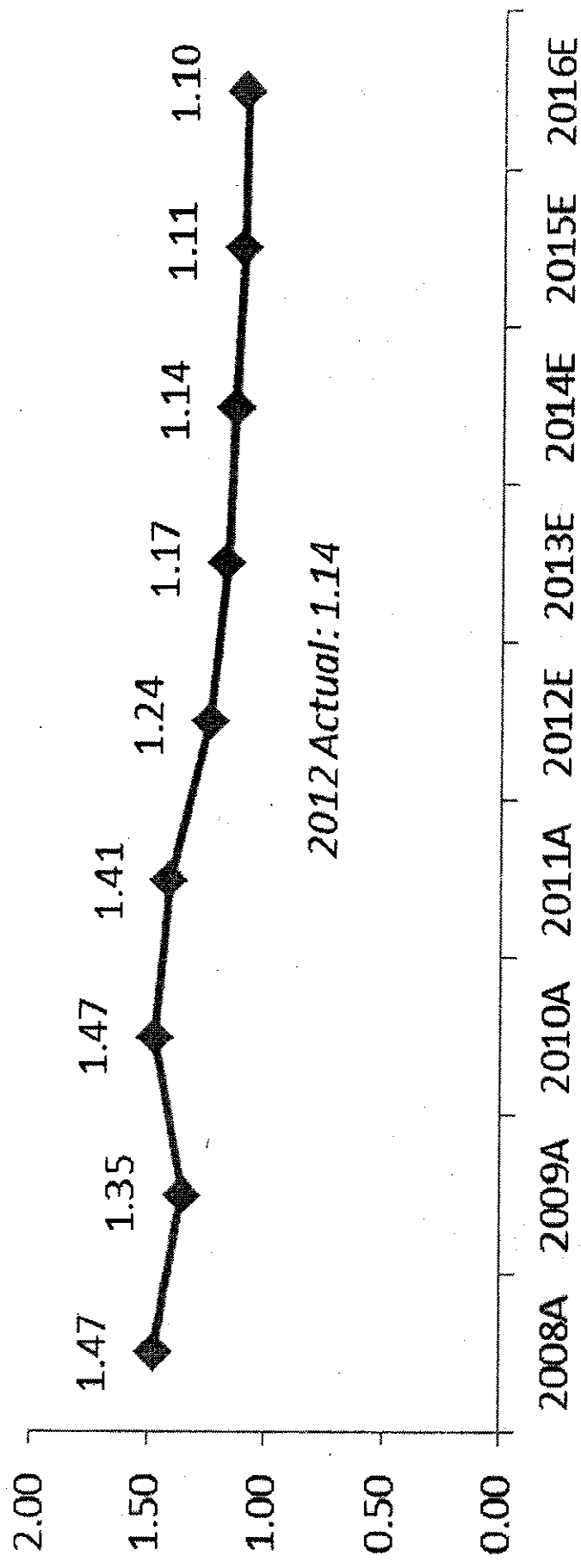
## **June 21, 2013**

### **DRAFT**

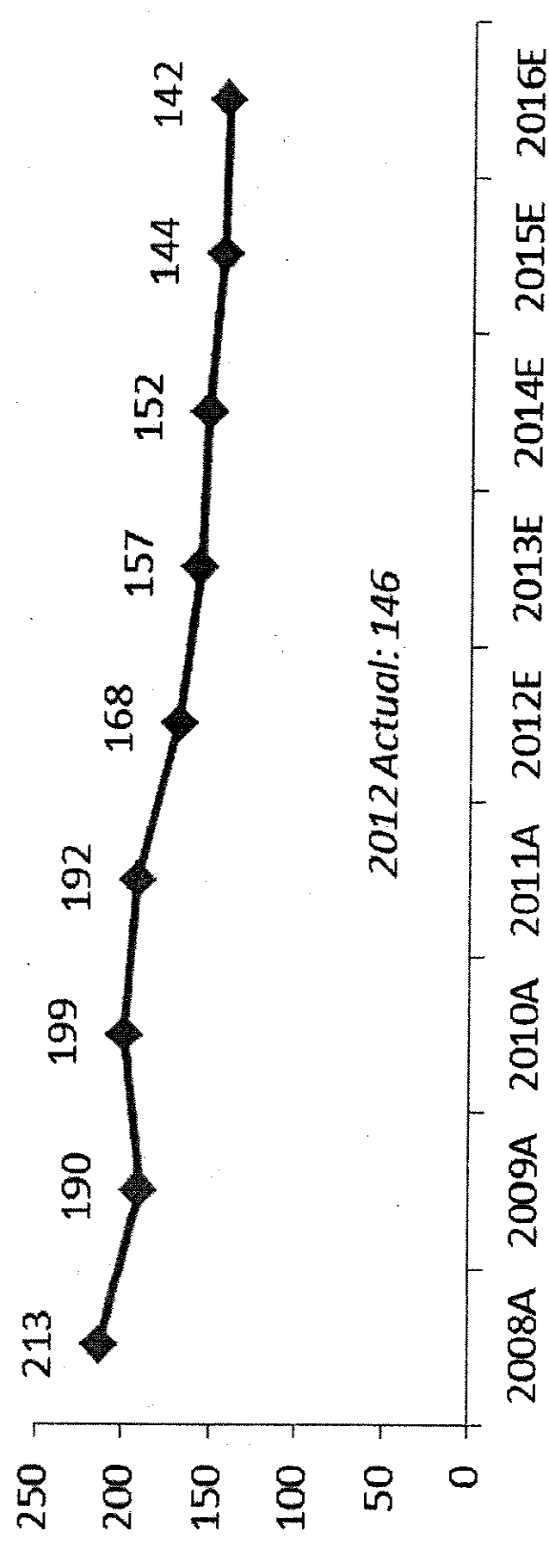
# Total Results

DE 13-115  
PSC-CP-2 Attachment A

## DPL Delaware - SAIFI

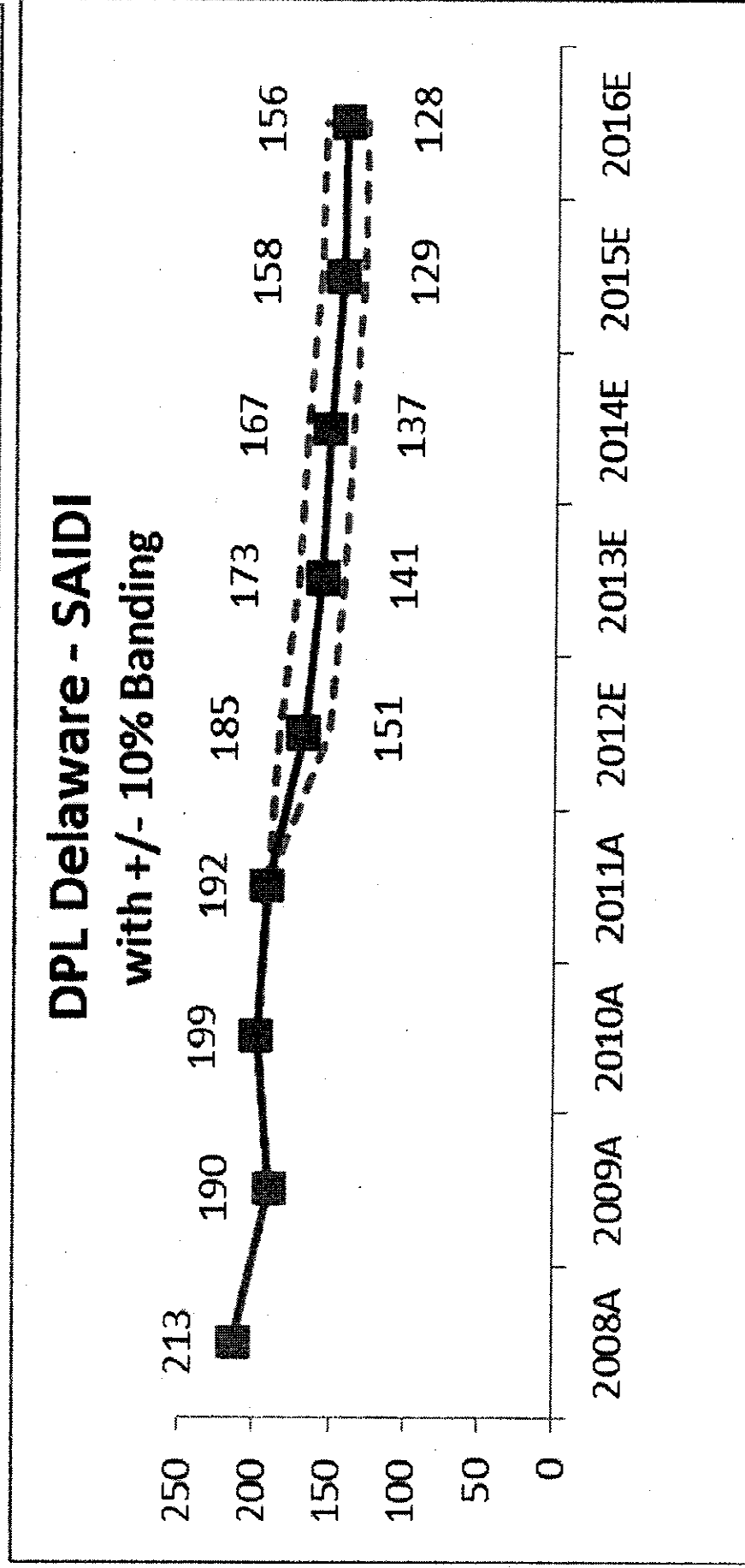
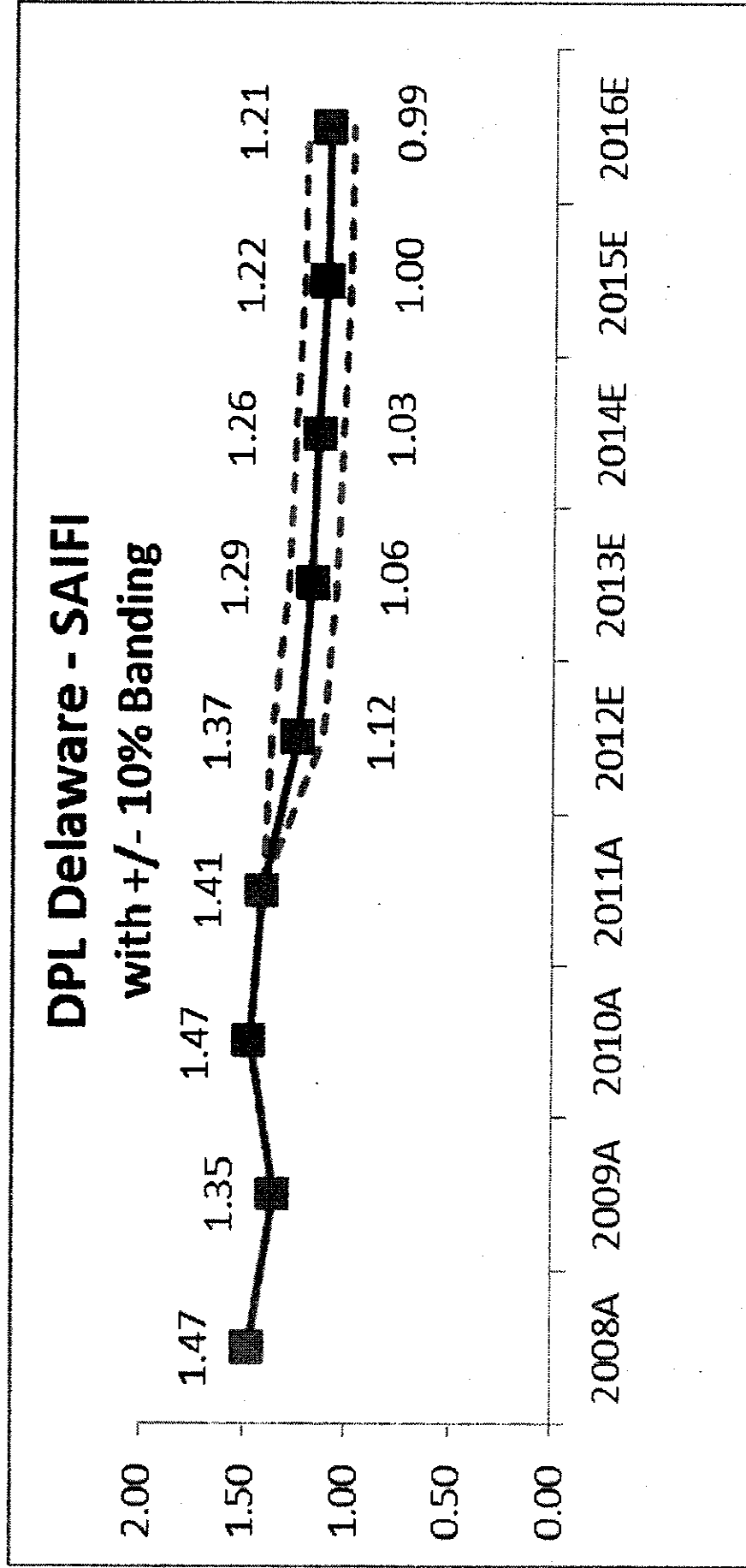


## DPL Delaware - SAIDI



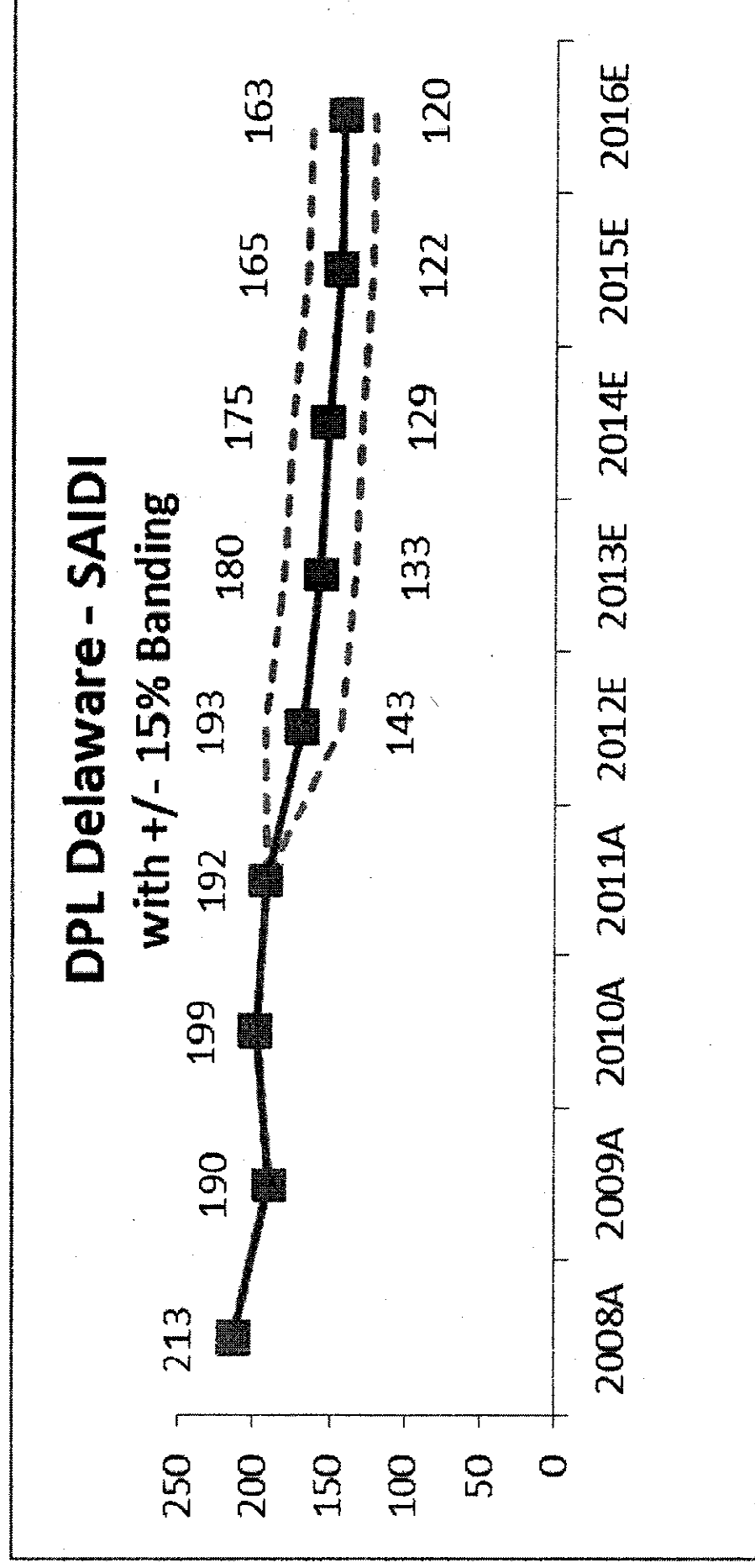
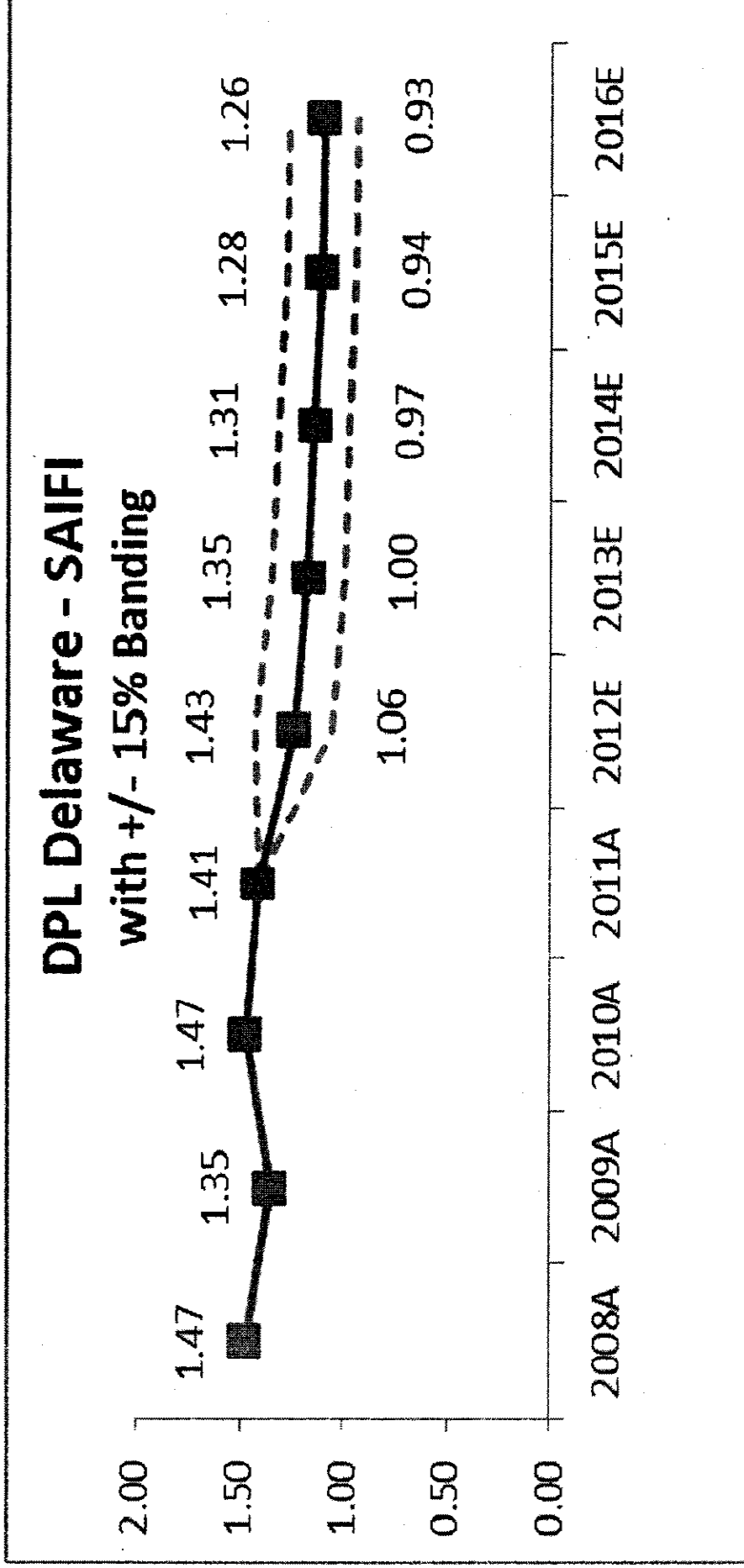
# Total Results with +/- 10% Banding

DE 13-115  
PSC-CP-2 Attachment A



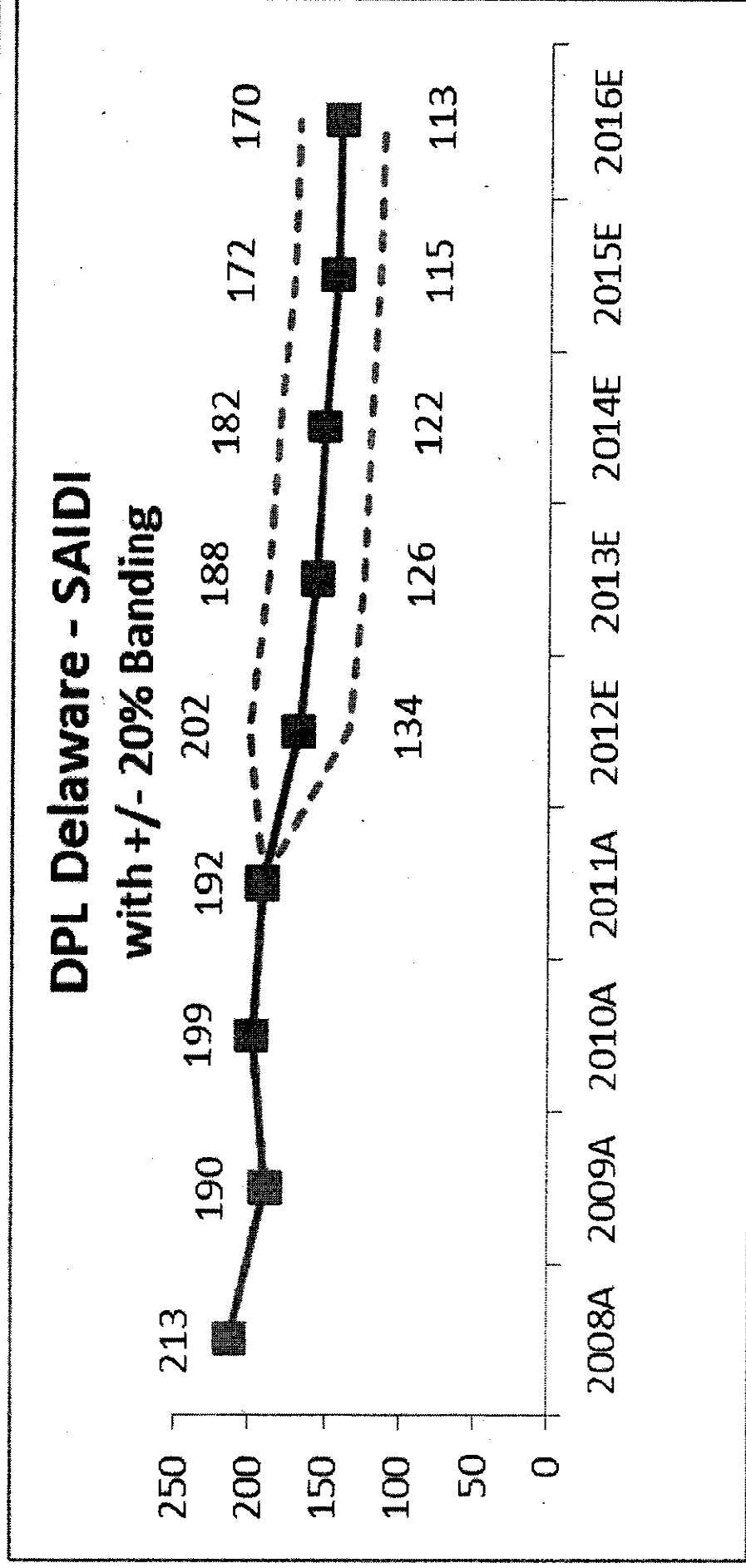
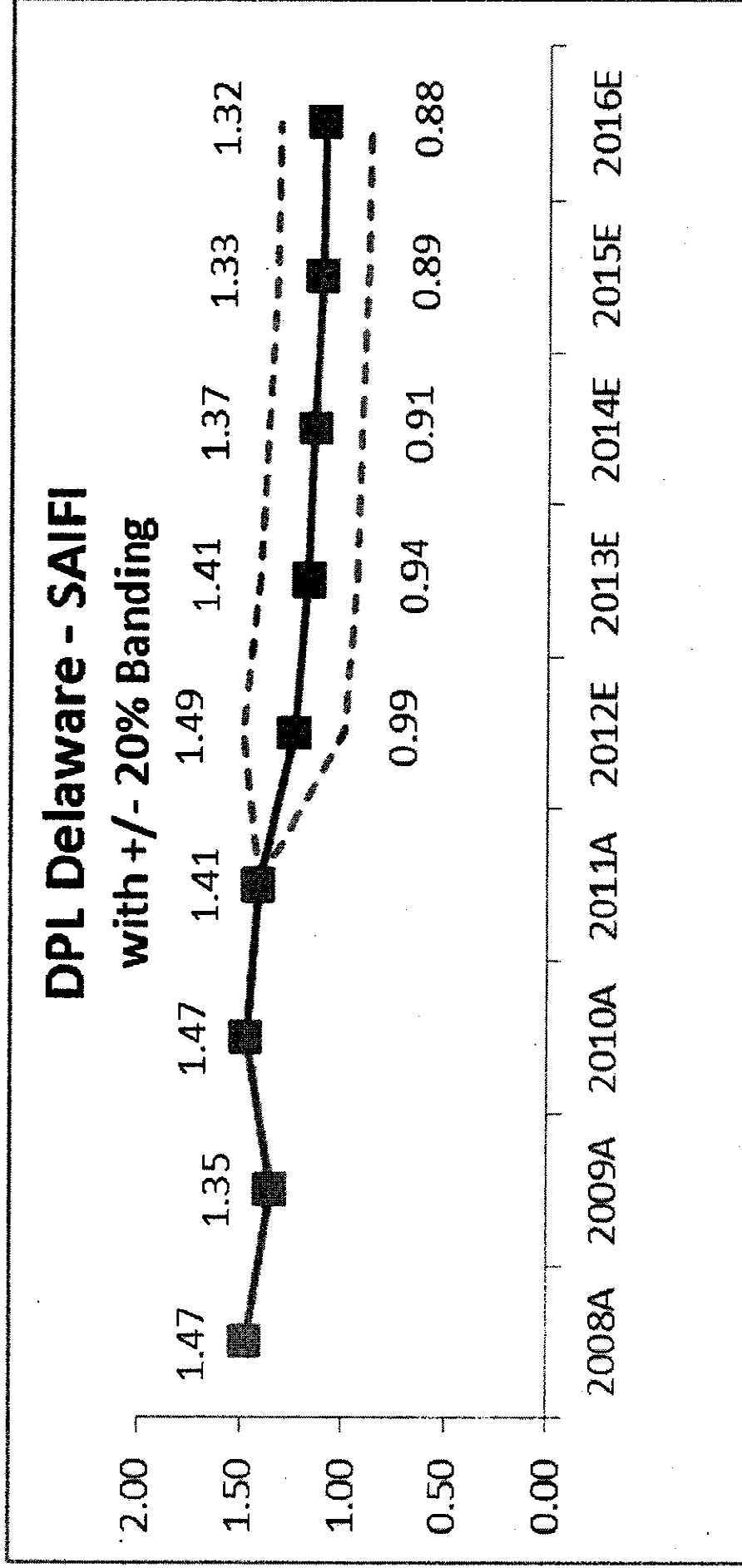
# Total Results with +/- 15% Banding

DE 13-115  
PSC-CP-2 Attachment A



# Total Results with +/- 20% Banding

DE 13-115  
PSC-CP-2 Attachment A





PSC DOCKET NO. 13-115  
ATTORNEY GENERAL OF THE STATE OF DELAWARE  
FIRST SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No. : AG-REL-2: Planned Capital Spending

- a. For the years 2013 through 2018, state the amount budgeted for capital spending broken down by plant category.
- b. Break down each of the amounts set forth in your response to part(a) by each:
  1. FERC USOA account:
  2. REP:
  3. Non-REP (itemize): and
  4. Total.
  5. Reconcile differences between the total and item (1) and the sum of items (2) and (3) to the total.
- c. Provide all workpapers and source documents supporting the Company's response in electronic form, with all spreadsheet links and formulas intact, source data used, and explain all assumptions and calculations used. To the extent the data requested is not available in the form requested, provide the information in the form that most closely matches what has been requested.

RESPONSE:

Delmarva assumes that "REP" is intended to refer to "Reliability Enhancement Plan."

- a. Refer to the response to AG-GEN-1 Attachment B. The current capital plan covers the 2013-2017 timeframe.
- b.
  1. Capital budgets and expenditures are not prepared by FERC Account.
  2. Refer to AG-GEN-1 Attachment D.
  3. See the attached: AG-REL-2 Attachment.
  4. Refer to AG-GEN-1 Attachment B.
  5. The requested reconciliation has not been performed.
- c. Refer to attachments above.

Respondent: Michael W. Maxwell

**PHI 2013 - 2017 "Non REP" Capital Budget**

Project Name	Short Description	ISD	2013	2014	2015	2016	2017	TOTAL
UDLBCSOLD	Bay DE Transm Line Upgra	12/31/2017	501	1	1	1	1	505
UDLBCMVD	Bay DE - Replace MV Stre	12/15/2016	277,671	287,400	290,001	258,620	0	1,113,692
UDLBCH0M	Millsboro - Highway Reloca	12/31/2017	688,762	574,192	312,415	321,082	329,110	2,225,561
UDLBCS1M	Millsboro - New Services &	12/31/2017	2,384,802	2,400,000	2,500,000	2,600,000	2,750,000	12,634,802
UDLBCS2M	Millsboro - Residential Infra	12/31/2017	1,186,508	1,200,000	1,300,000	1,300,000	1,400,000	6,386,508
UDLBCS3M	Millsboro - Facility Relocati	12/31/2017	296,051	300,000	300,000	350,000	350,000	1,596,051
UDSBCSOLD	Bay DE Dist Sub Upgrades	12/31/2017	536	1	1	1	1	540
			4,834,831	4,761,594	4,702,418	4,829,704	4,829,112	
UDLNCACRD	New Load Accruals & Emer	12/31/2017	996	1,000	1,000	1,000	1,000	4,996
UDLNCMR1	Meter Blanket - New Castle	12/31/2017	701,831	714,000	728,300	742,850	756,770	3,643,751
UDLNCMR2D	Meter Blanket - AMI NC D	12/31/2017	738,847	765,000	780,300	795,900	811,800	3,891,847
UDLNCMVD	Mercury Vapor St Lights Re	12/31/2013	480,256	0	0	0	0	480,256
UDLNCCH0C	Christiana - Highway Reloca	12/31/2017	2,095,241	2,145,549	2,166,696	2,282,949	2,340,023	11,030,458
UDLNC3IC	Christiana - New Services &	12/31/2017	1,764,698	1,802,724	1,900,710	2,000,429	2,103,276	9,571,837
UDLNC32C	Christiana - Residential Infra	12/31/2017	1,025,153	1,201,023	1,306,307	1,401,365	1,508,278	6,442,126
UDLNC33C	Christiana - Facility Relocat	12/31/2017	463,206	500,001	550,000	550,000	600,000	2,663,207
			7,270,228	7,129,297	7,433,313	7,774,493	8,121,147	
			12,105,059	11,890,891	12,135,731	12,604,197	12,950,259	

Project Name	Short Description	ISD	bx	2013	2014	2015	2016	2017	TOTAL
UDLBMS5D	Bay DE - Hazardous Waste / Distribution Retirements	12/31/2017	1.0	-17,640	-25,000	-25,000	-25,000	-25,000	-117,640
UDLBRACRD	BAY-DE - Accrual for Reliability	12/31/2017	1.0	1,068	1,000	1,000	1,000	1,000	5,068
UDLBOSV5DE	Bay-DE Reg. Salvage Scrap Wire/Cable	12/31/2017	1.0	-17,640	-25,000	-25,000	-25,000	-25,000	-117,640
UDLBRM3M1	Emergency Restoration Blanket - Millsboro	12/31/2017	1.0	2,485,026	2,528,043	2,528,043	2,528,043	2,528,043	12,597,198
UDLBRM4MA	Millsboro - Misc Dist Improvement Blanket	12/31/2017	1.0	612,596	666,666	666,666	666,666	666,666	3,279,260
UDLBRM4ME	Millsboro - Distribution Pole Repl	12/31/2017	1.0	35,488	40,001	40,001	42,231	43,287	201,008
UDLBRM4MH	Avian Protection Improvement Millsboro	12/31/2017	1.0	30,022	33,333	33,332	34,166	35,020	165,873
UDLBRM4MJ	Millsboro District - Recloser Replacement	12/31/2017	1.0	376,971	150,000	150,000	150,000	153,750	980,721
UDLBRM4MM	Customer Reliability Improvement - Millsboro	12/31/2017	1.0	205,216	228,128	231,332	237,116	243,044	1,144,836
UDLBRM4MO	Millsboro: Padmount Transformer Replacements	12/31/2017	1.0		200,000	250,000	250,000	250,000	950,000
UDLBRM4MQ	Millsboro: Upgrades for Multi Device Operations	12/31/2017	1.0	452,135	500,000	500,000	500,000	500,000	2,452,135
UDLBRM4RC	Bishop Substation - Lines Upgrades DE	5/31/2013	1.0	142,156	0	0	0	0	142,156
UDLBRM4ZM	AMI Distribution Line Work Bay Region: DE (Millsboro)	12/31/2014	1.0	9,934	0	0	0	0	9,934
UDLBRM5MZ	IR: Millsboro - Replace Deter Dist Line Switches	12/31/2018	1.0	0	0	0	0	0	0
UDLBRM5ND	NERC Line Upgrades: Dist Lines Bay DE	12/31/2014	1.0	235,309	100,000	0	0	0	335,309
UDSBRD71D	Bay Dist Sub Emergency - DE	12/31/2017	1.0	136,860	144,970	147,994	151,123	151,653	732,600
UDSBRD8AD	Bay Dist Sub Planned Impvts - DE	12/31/2017	1.0	35,248	36,151	36,853	37,554	38,255	184,061
UDSBRD8BD	Bay Dist Sub Relay Impvts. - DE	12/31/2017	1.0	47,406	53,713	54,864	56,105	57,257	269,345
UDSBRD8DD	DPU Relay Replacement: Laurel Feeder 506	12/31/2013	1.0	160,406	4,921	0	0	0	165,327
UDSBRD8ED	Bay Dist Sub Battery & Charger Repl - DE	12/31/2017	1.0	66,777	74,268	76,629	79,001	81,383	378,058
UDSBRD8FD	Bay Dist Subst Bushing Repl - DE	12/31/2017	1.0	102,445	74,334	74,927	75,521	76,115	403,342
UDSBRD8G	Bay Distribution - PHI Spare Transformers	5/31/2014	1.0	1,160,295	468,356	0	0	0	1,628,651
UDSBRD8G2	Bay Region 69/25x12 40MVA Mobile Unit	5/31/2013	1.0	918,806	0	0	0	0	918,806
UDSBRD8G3	Bay Region Purchase Mobile Transformer 201 I	12/31/2012	1.0	4,704	0	0	0	0	4,704
UDSBRD8G4	Bay Region Purchase 138x69kV / 25kV 30MVA Mobile Unit	12/31/2013	1.0	966,027	1,209	0	0	0	967,236
UDSBRD8ID	Bay Reg - DE: Replace Dist. Substation Roofs	12/31/2017	1.0	406,368	68,148	68,385	68,415	68,653	679,969
UDSBRD8MD	Scada/RTU Upgrade Capability: DE	12/31/2017	1.0	42,072	44,952	45,892	46,831	47,771	227,518

UDSBRD8PD	Surplus Dist Sub Equip Retire - DE	12/31/2017	1.0	10,532	10,500	10,500	10,500	10,500	52,532
UDSBRD8RB	Greenwood Substation-Retire/Remove 4kV	12/31/2013	1.0	127,281	1,429	0	0	0	128,710
UDSBRD8RG	Wyoming-Retire Substation	12/31/2013	0.8	80,129	0	0	0	0	80,129
UDSBRD8VD	NERC Physical Security - Bay-DE Dist Sub	12/31/2017	1.0	165,567	166,466	169,849	173,335	176,822	852,039
UDSBRD9DD	Replace Deteriorated Dist Brkr DE	12/31/2017	1.0	584,086	632,057	642,607	1,306,321	1,327,424	4,492,495
UDSBRD9SX1	IR: Sussex - T2 Replacement	12/31/2014	1.0	339,529	1,115,244	4,780	0	0	1,459,553
UDSBRD9GD	Replace Aging Dist Transformers DE	12/31/2017	1.00		0	0	0	27,089	27,089
UDSBRD9YD	IR: Bay Repl Deteriorated Dist Sub Structures DE	12/31/2017	1.00		0	0	0	0	0
UDSBRD9ZD	IR: Bay Repl Deteri Switches Dist Sub DE	12/31/2017	1.00		0	0	0	0	0
				9,905,178	7,293,889	5,683,654	6,433,928		
UDLNM3SD	Distribution Transformer Retirements DE	12/31/2017	1.0	132,992	155,481	203,840	248,560	254,592	995,465
UDLNRACRD	NC-DE - Accural for Reliability	12/31/2017	1.0	996	1,000	1,000	1,000	1,000	4,996
UDLNM5SD	NCDE Removal & Salvage Capitalized Equipment	12/31/2017	1.0	-17,640	-25,000	-25,000	-25,000	-25,000	-117,640
UDLNOSV5D	NC-DE Reg: Salvage Scrap Wire/Cable	12/31/2017	1.0	-17,640	-25,000	-25,000	-25,000	-25,000	-117,640
UDLNRM3CI	Emergency Restoration Blanket-Christiana	12/31/2017	1.0	10,796,115	10,744,131	10,744,131	10,744,131	10,744,131	53,772,639
UDLNRM4CA	Misc Dist Improvement Blanket - Christiana	12/31/2017	1.0	899,690	900,000	900,000	900,000	900,000	4,499,690
UDLNRM4CE	Christiana District-Distrib Pole Repl/Reinf	12/31/2017	1.0	330,572	364,228	368,923	373,849	383,195	1,820,767
UDLNRM4CH	Avain Protection: Christiana	12/31/2017	1.0	46,999	50,929	50,554	51,370	52,653	252,505
UDLNRM4CI	Christiana Distr- Replace Line Redclosers	12/31/2017	1.0	505,863	500,264	501,565	500,746	513,265	2,521,703
UDLNRM4CM	Customer Reliability Impvts-Christiana	12/31/2017	1.0	433,430	489,836	500,629	514,426	527,287	2,465,608
UDLNRM4CR	Wilmington Network Upgrade	5/31/2017	1.0	448,645	595,758	599,600	603,442	607,284	2,854,729
UDLNRM4CO	Christiana: Padmount Transformer Replacements	12/31/2017	1.00		200,000	250,000	250,000	250,000	950,000
UDLNRM4CQ	Christiana: Upgrades for Multi Device Operations	12/31/2017	1.0	502,574	500,000	500,000	500,000	500,000	2,502,574
UDLNRM4CU	Install Tree Wire/Spacer Cable - Christiana	12/31/2017	1.0	0	492,564	492,389	492,367	504,676	1,981,996
UDLNRM5BA	IR: Rogers Road Sub: Convert 4kv to 12kv	12/31/2012	1.0	3,947	0	0	0	0	3,947
UDLNRM5BB	Brookside DE0222: Upgrade Feeder to Balance Load	12/31/2013	1	0	0	0	0	0	0

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UDLNRM5ND	NERC Line Upgrades: Dist Lines NC DE	12/31/2014	1.0	226,509	50,000	0	0	0	0	276,509
UDLNRM5SC	Christiana Sub: Upgrade Fdr Duct/Manhole Sys	12/31/2013	1.0	1,502,344	0	0	0	0	0	1,502,344
UDLNRM5SD	Reconductor DE0217	4/30/2013	1.0	568,372	0	0	0	0	0	568,372
UDLNRM5SE	Dist Line Work for Switchgr Replac	12/31/2017	1.0	480,339	506,532	509,284	512,036	514,786	2,522,977	
UDLNRM8SE	Christiana Distr.-Rebuild OH Rear Lot Dist. Sys	12/31/2017	1.0	341,196	400,179	1,000,000	1,000,000	1,000,000	3,741,375	
UDLNRM8SH	Churchmans - Replace Reclosers	5/31/2013	1.0	20,225	0	0	0	0	20,225	
UDLNRM9SB	CH District Replace Steel Poles along 4th St. Wilm	12/31/2014	1.0	546,987	600,182	0	0	0	1,147,169	
UDLNRM4SA	Milford Xrd DE0290: Install Recloser	5/31/2013	1.0	0	0	0	0	0	0	
UDLNRMT1	Milltown: Move Ckt 640 from T1 to T3 (lines component)	5/31/2013	1.0	185,823	0	0	0	0	185,823	
UDSNRD71D	NC DE: Dist Sub Emergency	12/31/2017	1.0	235,656	256,081	259,307	262,535	265,763	1,279,342	
UDSNRD8AD	NC DE: Dist Sub Planned Impvys	12/31/2017	1.0	98,046	106,895	71,406	72,382	73,357	422,086	
UDSNRD8BD	NC DE: Dist Misc Relay Blanket	12/31/2017	1.0	61,414	67,789	68,906	70,026	71,144	339,279	
UDSNRD8ED	NC DE: Dist Sub Battery & Charger Repl	12/31/2017	1.0	103,071	107,927	108,835	109,743	110,650	540,226	
UDSNRD8FD	NC DE Dist Sub Bushing Repl	12/31/2017	1.0	122,066	128,106	139,376	140,091	144,018	673,657	
UDSNRD8G	New Castle - PHI Spare Transformers	12/31/2016	1.0	1,125,160	1,573,882	1,369,132	1,477,790	0	5,545,964	
UDSNRD8GI	New Castle - Purchase 138/69-12kv Mobile Tr	12/31/2013	1.0	3,790,302	64,759	0	0	0	3,855,061	
UDSNRD8GD	Christiana T2 upgrade	12/31/2012	1	124,303	0	0	0	0	124,303	
UDSNRD8PD	IR: NC DE Dist Sub Misc Equip Retire	12/31/2017	1.0	24,515	26,769	26,999	27,228	27,459	132,970	
UDSNRD8RA	North Wilmington Substation - Cleanup and Retire	12/3/2014	1.0	0	298,275	0	0	0	298,275	
UDSNRD8RC	Tenth Street Substation - Cleanup and Retire	12/31/2013	1.0	136,479	0	0	0	0	136,479	
UDSNRD8SA	CHURCHMANS Recloser removals	12/31/2013		46,220	0	0	0	0	46,220	
UDSNRD8SE	Silverbrook Sub: Replace Failed T-3	6/1/2013	1	264,849	0	0	0	0	264,849	
UDSNRD8SI	Chapel St. Retire T1- Resupply Sta Service	12/31/2013	1.0	88,077	0	0	0	0	88,077	
UDSNRD8VD	NERC Physical Security - NC-DE Dist Sub	12/31/2017	1.0	784,419	890,424	306,583	307,579	318,825	2,607,830	
UDSNRD9A	IR: Rogers Road Substation - Cleanup and Retire	12/3/2014	1.0	0	285,054	0	0	0	285,054	
UDSNRD9DD	IR: NC DE Brkr Repl Dist Sub	12/31/2017	1.0	1,399,999	1,385,949	1,399,530	1,131,775	1,142,586	6,459,839	
UDSNRD9FD	IR: NC DE Replace/Upgrade PTs Dist Subs	12/31/2017	1.0	69,201	78,098	79,165	80,235	82,269	388,968	
UDSNRD9HD	NC DE Subs: Replace PCB Cap Banks	12/31/2013	1.0	287,450	0	0	0	0	287,450	

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INFRAS



# Project Name Short Description

ISD 2013 2014 2015 2016 2017 TOTAL

UDLBM7M	Millsboro - Feeder Load Relief	12/31/2017	528,992					528,992
UDLBN7DD	Underbuilt Distribution Rebuild: Bay DE	12/31/2017	501,107	507,528	511,344	515,160	528,039	2,563,178
			1,030,099	507,528	511,344	515,160	528,039	3,092,170
UDLNPBC1	Distribution Line Work for Sub Expansion	5/31/2012	71,904	0	0	0	0	71,904
UDLNPBC2	Brandywine to Edgemoor Distribution Unde	5/31/2012	97,315	0	0	0	0	97,315
			169,219	0	0	0	0	
	Total Load		1,199,318	507,528	511,344	515,160	528,039	



PSC DOCKET NO. 13-115  
ATTORNEY GENERAL OF THE STATE OF DELAWARE  
FIRST SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No.: AG-REL-3: Capital Additions

- a. For each of the years 2007 through 2012, and for 2013 through the date of your response, state the amount of plant additions broken down by plant category.
- b. Break down each of the amounts set forth in your response to part (a) by each:
  1. FERC USOA account;
  2. REP;
  3. Non-REP (itemize); and
  4. Total.
  5. Reconcile differences between the total and item (1) and the sum of items (2) and (3) to the total.
- c. State the amount of plant additions included in each year of the Company's five-year capital budget for period 2013 through 2018.
- d. Provide all workpapers and source documents supporting the Company's response in electronic form, with all spreadsheet links and formulas intact, source data used, and explain all assumptions and calculations used. To the extent the data requested is not available in the form requested, provide the information in the form that most closely matches what has been requested

RESPONSE:

Delmarva assumes that "REP" is intended to refer to "Reliability Enhancement Plan."

- a. Refer to the response to AG-REL-1 Attachment B.
- b.
  1. Capital budgets and expenditures are not prepared by FERC Account. Refer to the response to AG-RR-66.
  2. For available information, see the attached: AG-REL-3 Attachment A. Note that the Reliability Enhancement Plan (REP) was approved by Delmarva's Board of Directors in 2010.
  3. For available information, see the attached: AG-REL-3 Attachment B.
  4. Refer to the response to AG-GEN-1 Attachment A. See also AG-REL-1 Attachment C.
  5. The requested reconciliation has not been performed.
- c. The requested forecast has not been performed.

Respondent: Michael W. Maxwell

1/18/2013 2011 - 2017 DPL - DE REP Actuals

Actual Expenditures	2011 As of 12/2011	2012 As of 12/2012	2013 As of 3-31-13
Priority Feeder Upgrades	2,905,577	5,832,319	811,941
Underground Residential Distribution Cable			
Upgrades (URD)	3,837,509	5,674,580	1,419,556
Distribution Automation	2,053,809	5,890,246	2,138,966
Feeder Reliability Improvements	1,467,543	4,830,102	1,231,126
Conversions			742,360
Substation Reliability Improvements		1,982,713	926,803
Feeder Load Relief	1,303,775	2,281,930	680,271
TOTALS	11,568,213	26,491,891	7,951,022

Project Name

Short Description

2011

2011 A  
As of 12/2011

PF Upgrade	UDLBRM4MF	Millsboro - Priority Circuit Improvement	481,869	1,361,055
	UDLBRM4MK	Millsboro Priority Feeder Rebuild	0	
	UDLNRM4CF	Christiana - Priority Ckt Improvement	1,512,906	1,334,564
	UDLNRM4CK	Priority Feeder Rebuild: Christiana	721,017	209,958
TOTAL			2,715,792	2,905,577

URD	UDLBRM4MC	Millsboro - Replace Deteriorated URD Cable	636,492	759,646
	UDLBRM4MD	Millsboro - Planned URD Cable Replacement	1,200,000	2,004,031
	UDLNRM4CC	Christiana - Replace Deteriorated URD Cable	961,105	1,073,832
TOTAL			2,797,597	3,837,509

DA	UDLBRDA1D	Distribution Automation - Bay DE	570,727	1,063,871
	UOIBRASRD	UF Install ASR Computer	144,908	2,555
	UDSBRDA1D	Substation Distribution Automation Bay DE	437,987	200,647
	UORBOBR1M	M1 Comm Work - Collector to Data Network	441,936	88,494
	UORBODA1M	Millsboro Comm Work - Install Radios in Line Equip	324,168	57,591
	UORBORBSM	BBW Base Station - Install Millsboro	266,570	62,419
	UORBORSSM	Millsboro Sub Subscriber - BBW	201,659	
	UDLNRDA1C	Distribution Automation: Christiana District	1,045,169	
	UOINRASRD	UF Install ASR Computer	144,908	79,502
	UDSNRDA1C	Distribution Automation: Christiana Substations	389,750	154,396
	UORNOBR1C	CH Comm Work - Collector to Data Network	375,928	196,004
	UORNODA1C	Christiana Comm Work - Install Radios in Line Equipment	222,709	46,907
	UORNORBSC	BBW Base Station - Install Christiana	234,210	101,423
	UORNORSSC	Christiana - Sub Subscriber - BBW	202,270	
TOTAL			5,002,899	2,053,809

Feeder REL	UDLBRM63M	Millsboro: Feeder Reliability Improvement	583,484	627,540
	UDLNRM63C	Christiana Feeder Reliability Improvements	2,142,216	840,003
TOTAL			2,725,700	1,467,543

13,241,988

Feeder LR	UDLBLBR1	Lakeside: Construct 2 New Feeders	0	
	UDLBLFP2	Five Points - Construct New Feeder	0	
	UDLBLM7M	Millsboro - Feeder Load Relief	711,702	458,271
	UDLBLM7M.1	Millsboro - Distribution VAR Correction	0	
	UDLBLM7M.2	Install Dist Regulators- Fdr Load Relief - Millsboro	0	
	UDLBLM7M.22	Nr Seaford DE0516: R/C 1.75 miles of Feeder	0	
	UDLBLM7M.33	Five Points DE0528: Double Leg Getaway & Add Recloser	0	
	UDLBLM7M.7	Cedar Neck DE0532: Double-leg Getaway&Install Reclosers	0	
	UDLBLM7M.9	Harbeson Sub: Swap Feeders 2270 & 2237	0	
	UDLBLMG1	Magnolia Area 230/25kV Substation: Build two new 25kV Distribut	0	
	UDSBLFP1	Five Points Sub - T2 Add New Brkr	0	
	UDSBLM72A	Clayton Sub Replace T3	31,157	5,501
	UDSBLM7D	Future Projects Dist Sub Bay DE	0	

UDSBLMG2	Magnolia Area 230/25kV Substation-Build New Substation	0	
UDLNLCBC2	Mount Pleasant T2: Extend a New Feeder	0	
UDLNLM7C	Christiana - Feeder Load Relief	244,501	840,003
UDLNLM7C.1	Christiana - Distribution VAR Correction	0	
UDLNLM7C.10	Valley Road: Establish 12 kV Exit Feeders	0	
UDLNLM7C.2	Install Dist Regulators - Fdr Load Relief- Christiana	0	
UDLNLM7C.21	Churchman's DE0256: Reconductor Getaway	0	
UDLNLM7C.4	Bear 12kV: Parallel exit cable DE0755	0	
UDSNLM7	Future Projects	0	
UDSNLM7D	Future Projects	0	
UDSNLM70A	West Wilmington: Replace Low-Side Configuration	0	
UDSNLM78A	Red Lion - Add 2nd 138/25kV Transformer	0	
UDSNLM78B	Reybold - Increase T1 & T2 emergency rating	0	
UDSNLMC1	Montchanin Sub: Install New 34/12kV Transformer and Switchgear	0	
UDSNLVR1	Valley Road Sub: Install 138/12kV Transformer & Swgr	0	
UDSNLVR1	Valley Road Sub: Install 138/12kV Transformer & Swgr	0	

987,360 1,303,775

14,229,348 11,568,213

Compan Project Name Short Description

2012 2012

Actuals as of  
12/31/2012

DPL-DE

PRI FDR

UDLBRM4MF	Millsboro - Priority Circuit Improvement	1,494,110	795,059
UDLNRM4CF	Christiana - Priority Ckt Improvement	2,315,615	5,037,261
TOTAL		3,809,725	5,832,319

URD

UDLBRM4MC	Millsboro - Replace Deteriorated URD Cable	751,172	929,715
UDLBRM4MD	Millsboro - Planned URD Cable Replacement	2,536,257	3,148,970
UDLNRM4CC	Christiana - Replace Deteriorated URD Cable	1,005,986	703,978
UDLNRM4CD	Christiana - Planned URD Cable Replacement	1,464,830	891,918
UDLNRM5CA	IR: Christiana - URD Infrastructure Replacements	0	
TOTAL		5,758,245	5,674,580

DA

UDLBRDA1D	Distribution Automation - Bay DE	751,526	397,950
UDSBRDA1D	Substation Distribution Automation Bay DE	463,469	924,674
UOIBRASRD	Install ASR Computer: Bay DE	132,725	121,397
UDLNRA1C	Distribution Automation: Christiana District	1,036,068	184,726
UDSNRD8MD	Scada/RTU Upgrade NC DE Dist Sub	188,184	57,605
UDSNRDA1C	Distribution Automation: Christiana Substations	1,453,506	3,363,047
UOINRASRD	Install ASR Computer: NC DE	187,498	167,057
UORBOBR1M	MI Comm Work - Collector to Data Network	271,455	64,175
UORBODA1M	Millsboro Comm Work - Install Radios in Line Equip	263,663	-12,552
UORBORBSM	BBW Base Station - Install Millsboro	358,121	14,964
UORBORBTM	Millsboro Comm Work - Upgr Radios in Line Equip	0	
UORBORCPM	Millsboro: Install Radio Control for Cap Contrl	0	
UORBORSSM	Millsboro Sub Subscriber - BBW	272,775	
UORNOBR1C	CH Comm Work - Collector to Data Network	258,206	286,224
UORNODA1C	Christiana Comm Work - Install Radios in Line Equipme	429,811	173,459
UORNORBSC	BBW Base Station - Install Christiana	254,789	32,669
UORNORBTC	Christiana Comm Work: Upgrade Radios in Line Equip	0	
UORNORCPC	Install Radio Control for Cap Cntrl-Christiana	0	
UORNORSSC	Christiana - Sub Subscriber - BBW	439,608	114,852
TOTAL		6,761,404	5,890,246

UDLBRM63M	Millsboro: Feeder Reliability Improvement	2,568,671	2,647,888
UDLBRM4MK	Millsboro Priority Feeder Rebuild	0	
UDLNRM4CK	Priority Feeder Rebuild: Christiana	0	
UDLNRM63C	Christiana Feeder Reliability Improvements	2,803,236	2,182,214
UDSBRM61D	Bay - DE Sub Comprehensive Reliability Impvts	1,505,615	
UDSNRM61D	NC - DE Sub Comprehensive Reliability Impvts	1,575,271	1,982,713
TOTAL		8,452,793	6,812,816
		3,080,886	1,982,713

5,371,907 4,830,102

LOAD

UDLBLFP2	Five Points - Construct New Feeder		
UDLBLM7M	Millsboro - Feeder Load Relief	1,355,764	886,425
UDLBLM7M.1	Millsboro - Distribution VAR Correction		
UDLBLM7M.12	Cedar Neck DE0531: Reconductor Downstream Conductor		
UDLBLM7M.13	Cedar Neck DE0531: Reconductor Getaway		
UDLBLM7M.2	Install Dist Regulators- Fdr Load Relief - Millsboro		

UDLBLM7M.6	Five Points DE0528: R/C & Install Reclosers		
UDLBLM7M.7	Cedar Neck DE0532: Double-leg Getaway&Install Reclosers		
UDLBLM7M.21	Five Points DE0527: Reconductor Downstream		
UDLBLM7M.22	Midway DE0510: Install Recloser to Increase Relay Load Limit		
UDLBLM7M.28	Felton DE2247: Install Switch for New Normal Open		
UDLBLMG1	Magnolia Area 230/25kV Substation: Build two new 25kV Distribution Lines		
UDSBLFP1	Five Points- T2 Add New Brkr		
UDSBLM72A	Clayton Sub Replace T3	697,263	557,815
UDSBLM72B	Cedar Neck T1: Upgrade Bus	68,854	36,003
UDSBLM73A	Millsboro T2: Upgrade Disconnect Switch	12,305	
UDSBLM73B	Midway: Install 2nd 69/12kV Transformer		
UDSBLM76A	Cedar Neck: Install 2nd 69/12kV Transformer		400,644
UDSBLM7D	Future Projects Dist Sub Bay DE		
UDSBLMG2	Magnolia Area 230/25kV Substation-Build New Substation		
UDLNLM7C	Christiana - Feeder Load Relief	73,683	
UDLNLM7C.10	Christiana - Distribution VAR Correction		71,787
UDLNLM7C.11	Bear DE0750: Reconductor the Getaway	0	
UDLNLM7C.17	Mermaid DE0745: Reconductor Getaway/Add Recloser	0	
UDLNLM7C.2	Install Dist Regulators - Fdr Load Relief- Christiana	0	
UDSNLM72A	W. Wilmington Sub Bus & Brkr Upgrade	512,451	
UDSNLM7D	NC-DE Future projects	0	329,256
		2,720,320	2,281,930

Company Project Name Short Description

2013  
As of 3-31-13

DPL-DE

PRI FDR

UDLBRM4MF	Millsboro - Priority Circuit Improvement	607,843
UDLNRM4CF	Christiana - Priority Ckt Improvement	204,098
TOTAL		811,941

URD

UDLBRM4MC	Millsboro - Replace Deteriorated URD Cable	100,662
UDLBRM4MD	Millsboro - Planned URD Cable Replacement	555,014
UDLNRM4CC	Christiana - Replace Deteriorated URD Cable	185,577
UDLNRM4CD	Christiana - Planned URD Cable Replacement	578,303
TOTAL		1,419,556

DA

UDLBRDA1D	Distribution Automation - Bay DE	
UDSBRDA1D	Substation Distribution Automation Bay DE	-7,935
UOIBRASRD	Install ASR Computer: Bay DE	14,547
UDLNRDA1C	Distribution Automation: Christiana District	49,630
UDSNRD8MD	Scada/RTU Upgrade NC DE Dist Sub	
UDSNRDA1C	Distribution Automation: Christiana Substations	749,202
UOINRASRD	Install ASR Computer: NC DE	6,663
UORBOBR1M	MI Comm Work - Collector to Data Network	
UORBODA1M	Millsboro Comm Work - Install Radios in Line Equip	
UORBORBSM	BBW Base Station - Install Millsboro	432
UORBORBTM	Millsboro Comm Work - Upgr Radios in Line Equip	
UORBORCPM	Millsboro: Install Radio Control for Cap Contrl	
UORBORSSM	Millsboro Sub Subscriber - BBW	106,431
UORNOBRIC	CH Comm Work - Collector to Data Network	99,281
UORNODA1C	Christiana Comm Work - Install Radios in Line Equipment	9,914
UORNORBSC	BBW Base Station - Install Christiana	542,993
UORNORBTC	Christiana Comm Work: Upgrade Radios in Line Equip	
UORNORCPC	Install Radio Control for Cap Cntrl-Christiana	
UORNORSSC	Christiana - Sub Subscriber - BBW	567,808
TOTAL		2,138,966

UDLBRM63M	Millsboro: Feeder Reliability Improvement	997,360
UDLNRM63C	Christiana Feeder Reliability Improvements	233,765
UDSBRD9SF	IR: Millsboro Sub - T1 Replacement	139,428
UDSBRD9SG	IR: Nr Seaford Sub - T1 & T2 Replacement	
UDSBRD9SJ	IR: Kent Sub - T2 Replacement	
UDSBRD9SL	IR: Bethany Sub - T2 Replacement	
UDSBRM61D	Bay - DE Sub Comprehensive Reliability Impvts	
UDSNRD8KD	DPL DE - Switchgear replacements	
UDSNRD9KA	Milford Crossroads Sub - Switchgear replacements	19,410
UDSNRD9KB	Bear Sub - Switchgear replacements	17,656
UDSNRD9KC	Naamans Sub - Switchgear replacements	0
UDSNRD9KD	Mermaid Sub - Switchgear replacements	0
UDSNRD9KE	West Wilmington Sub - Switchgear replacements	0
UDSNRD9KF	Churchmans Sub - Switchgear replacements	0
UDSNRD9KG	Milltown Sub - Switchgear replacements	0
UDSNRD9KH	Sunset Lake Sub - Switchgear replacements	0
UDSNRD9KI	Tallyville Sub - Switchgear replacements	0
UDSNRM61D	NC - DE Sub Comprehensive Reliability Impvts	750,309

TOTAL 2,157,929  
926,803

1,231,126

UDLBRM8BA	Greenwood: 4-25kV Conversion	555,788
UDLBRM8BB	Wyoming-Convert to 25kV Cir 2233 (Phase II)	186,571
		742,360

## LOAD

UDLBLFP2	Five Points - Construct New Feeder	0
UDLBLM7M	Future Projects Dist Line Millsboro	0
UDLBLM7M	Millsboro - Feeder Load Relief	38,665
UDLBLM7M.1	Millsboro - Distribution VAR Correction	
UDLBLM7M.13	Rehoboth Sub: Move Feeder 521 from T1 to T2	
UDLBLM7M.2	Install Dist Regulators- Fdr Load Relief - Millsboro	
UDLBLM7M.6	Five Points DE0528: R/C & Install Reclosers	0
UDLBLMG1	Magnolia Area 230/25kV Substation: Build two new 25kV Distributio	0
UDSBLFP1	Five Points- T2 Add New Brkr	0
UDLBLMW2	Midway: Extend New Feeder	0
UDSBLM72A	Clayton Sub Replace T3	48,280
UDSBLM73A	Millsboro T2: Upgrade Disconnect Switch	1,727
UDSBLM73B	Midway Substation: Install New Transformer	
UDSBLM73C	Harbeson Sub: Upgrade T-1	262,180



UDSBLM76A	Cedar Neck: Install 2nd 69/12kV Transformer	
UDSBLM7D	Future Projects Dist Sub Bay DE	0
UDSBLMG2	Magnolia Area 230/25kV Substation-Build New Substation	0
UDLNL CBC2	Mount Pleasant T2: Extend a New 25 kv Fdr	0
UDLNLM7C	Future Projects Dist Line Christiana	0
UDLNLM7C	Christiana - Feeder Load Relief	
UDLNLM7C.10	Christiana - Distribution VAR Correction	
UDLNLM7C.11	Bear DE0752: Reconductor the Getaway	
UDLNLM7C.17	Mermaid DE0745: Reconductor Getaway/Add Recloser	0
UDLNLM7C.2	Install Dist Regulators - Fdr Load Relief- Christiana	0
UDLNLM7C.21	Churchman's DE0256: Reconductor Getaway	0
UDSNLM72A	W.Wilmington Sub bus and breaker upgrade	329,418
UDSNLM7D	NC-DE Future projects	0

680,271



Co	btP	btP	btP	Project Name	Short Description	ISD	btF	2007	2008	2009	2010	2011	2012	TOTAL
C	F			RDLBHW2	Millsboro Highway Relocations-Blanket	12/31/2009	1	-67,849	33,360		4,717			-29,772
C	N			RDLBNL2	New Load - Millsboro (Approved 2005: 6,109,220)	12/31/2009	1						144	144
C	N			RDLBNL2	New Load - Millsboro (Approved 2005: 6,109,220)	12/31/2009	1	962,085	27,123	479	-44,472			945,215
O	M			SDLBCHOM	Millsboro - Highway Relocations	12/31/2010	1				-13,471		1,198,279	1,184,808
O	M			UDLBCMVD	Bay DE - Replace MV Streetlights	12/31/2015	1					98,835		98,835
C	N			UDLBCMV	Bay Reg: Replace Murcury Vapor St Lits	12/31/2013	1	0	141,751	61,152	249,919	217,131		669,953
C	N			UDLBCMVD	Bay Reg: Replace Murcury Vapor St Lits DE	12/31/2013	1	0					339,225	339,225
S	I			UDLBCLEDM	Streetlights - LED Pilot Millsboro	12/31/2010	1				40,894	540		41,434
C	F			UDLBCCHOM	Millsboro - Highway Relocations	12/31/2013	1	456,100	102,953	-243,840	196,845	513,936		1,025,994
C	N			UDLBCSIM	Millsboro - New Services & St Lights	12/31/2013	1	4,604,160	4,777,391	3,383,542	2,452,978	1,863,180	2,413,229	19,494,480
C	N			UDLBCS2M	Millsboro - Residential Infrastructure	12/31/2013	1	3,095,720	1,674,340	827,817	474,692	529,379	348,384	6,950,332
C	N			UDLBCS3M	Millsboro - Facility Relocations	12/31/2013	1	281,872	147,349	246,027	553,898	197,923	228,213	1,655,282
								9,332,088	6,904,267	4,275,177	3,916,000	3,420,924	4,527,474	32,375,929
														0
R	N			RDLNMR1	Meter Blanket-New Castle	12/31/2012	1	4,491,670	3,439,614	80,500	-3,160			8,008,624
R	N			RDLNMR3	Residential Advanced Metering	12/31/2005	1	0	0					0
C	N			RDLNLI1	New Load - Christiana (Approved 2005: 8,422,914)	3/31/2009	1	1,569,422	-594,979	-294,723	-336,297	-1,691		341,732
C	F			RDLNHW1	Christiana District-Highway Blanket	12/31/2009	1	111,392	-696,730	-21,851				-607,189
S	U			RDLNUP82	JP Morgan Bank Back-Up Feeder ( R )	6/1/2008	1	253,434	217,142		-352,164			118,412
S	I			RDLNUP213	Edgemoor Circuit 208 Rebuild	5/31/2005	1.01	0	0					0
S	I	AD47 A-Pr		RDLNUP254	Edgemoor: Upgrade DE0204 & DE0208 for JPMC (Governor)	12/31/2008	1	0	0					0
S	W			RDSNUP64	Edgemoor 69kV Substation Bus work for BankOne	3/31/2004	1.01	0	0					0
S	W			RDSNUP84	Edgemoor New 138/12kV transformer for Bank One	3/31/2004	1.01	0	0					0
S	U			RDSNUP87	Keeney EHV Substation work for BankOne	3/31/2004	1.01	0	0					0
S	U			RDSNUP125	Edgemoor Plant: Upgrade terminal on DE0208 for JPMC @	5/31/2009	1	0	237,204					237,204
O	M			SDLNCHOC	Christiana - Highway Relocations	12/31/2010	1				74,399	468,858	-379,438	163,819
C	N			UDLNCACCR	DPL Reg: New Load Accuals & Emerg	12/31/2013	1	0						0
S	I			UDLNCACRD	New Load Accuals & Emerg DPL DE	12/31/2015	1	0	0			3,146,440	-253,428	2,893,012
S	I			UDLNCLEDC	Streetlights - LED Pilot Christiana	12/31/2009	1	0	0	1,683	29,589	527		31,799
C	I			UDLNCM7C	Dist Lines - Customer Driven Requests - Christiana	12/31/2012	1	0	39,805	109,777	3,901,036		82,772	4,133,390
C	U			UDLNCM7C.3	Wilmington Hospital: Construct Backup Feeder	12/31/2010	1	0	100,000		1			100,001

	S	L				UDLNCM7C.4	JPMC (Gov Printz): Parallel DE0204 & DE0208	12/31/2011	1					1	-2,776,091		-2,776,090
	R	N				UDLNCMR1	Meter Blanket - New Castle Reg	12/31/2013	1	0	0	1,599,650	1,342,309		670,679	1,082,824	4,695,462
	R	N				UDLNCMR2	Meter Blanket - AMI - DPL	12/31/2013	1	0	0						0
	R	N				UDLNCMR2D	Meter Blanket - AMI NC DE	12/31/2015	1	0	0				1,198,728	237,434	1,436,162
	R	N				UDLNCMR3	Meter Load study	12/31/2008	1	0	289,166						289,166
	C	N				UDLNCMV	New Castle Reg: Replace Murcury Vapor St Lits	12/30/2013	1	0	452,506	259,727	403,783		45,939	-43,191	1,118,764
	S	L				UDLNCMVD	Mercury Vapor St Lights Replace - NC DE	12/31/2015	1						610,438	607,179	1,217,617
	S	L				UDLNCNC1	DE0161 Transfer Distribution to new poles City of NC	5/31/2010	1				11,574				11,574
	C	F				UDLNCH0C	Christiana - Highway Relocations	12/31/2013	1	934,213	1,543,284	306,733	1,133,747		530,861	2,201,989	6,650,827
	C	N				UDLNC51C	Christiana - New Services & St Lights	12/31/2013	1	4,818,493	4,982,336	3,657,409	2,986,635		1,765,165	3,705,540	21,915,578
	C	N				UDLNC52C	Christiana - Residential Infrastructure	12/31/2013	1	1,364,204	987,373	993,684	751,207		632,938	1,001,450	5,730,856
	C	N				UDLNC53C	Christiana - Facility Relocations	12/31/2013	1	438,264	168,411	182,806	401,750		-112,033	-143,065	936,133
	C	U				UDSNCM7C.2	Edgemoor Sub: Install Spare Tr for JPMC	11/1/2008	1	0	100,000						100,000
										13,981,092	11,265,132	6,875,395	10,344,410		6,180,758	8,100,066	56,746,854
																	0
										23,313,180	18,169,398	11,150,572	14,260,410		9,601,683	12,627,540	89,122,783
																	0
										#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
																	0

O	X	RDLBEMG2	Emergency Restoration Blanket - Millsboro	12/31/2008	1	1,475,661	247,105					1,722,766
S	R	RDLBR26	Millsboro - Planned URD Cable Replacements	12/31/2012	1	572,045	45,949					617,994
S	R	RDLBR33	Avain Protection - Improvements	12/31/2012	1	0	0					0
S	X	RDLBMS2	Millsboro - Misc Distribution Improvement Blanket	12/31/2008	1	1,245,315	183,272	3,176				1,431,763
S	X	RDLBMS6	Bay Region: Reject Pole Replacement	12/31/2008	1	136,663	42,487					179,150
S	X	RDLBMS105	Millsboro Misc. Distribution Improvement Blanket	12/31/2005	1	0	0					0
S	R	RDLBUP60	Millsboro District-Replace Deteriorated BD Cable	12/31/2012	0.81	398,099	49,340					447,439
S	I	RDLBUP68	Country Club Estates Cable Replacement	6/30/2006	1	111,733	0					111,733
S	X	RDLBUP122	Priority Ckt Improvements- Bay Reg	12/31/2008	1	329,366	157,479					486,845
S	I	RDLBUP180	Bay Region - Install DA Switches & Reclosers	12/31/2012	1	0	0					0
O	R	RDSBEMG1	Bay Distribution Substation Emergency (Formerly RDSBIR4)	12/31/2008	1	103,629	0	0			0	103,629
S	I	RDSBIR3	Bay Distribution Planned Improvements	12/31/2008	1.15	0	0	0			0	0
S	R	RDSBIR5	Distribution Miscellaneous Relay Blanket-Bay	12/31/2008	1	0	0	0			0	0
S	R	RDSBIR22	Bay Reg - Misc Sub Equipment Retirement-Distribution	12/31/2012	1	0	0	0			0	0
S	R	RDSBIR26	Bay Distribution Substation Bushing Replacements	12/31/2008	1	27,268	0	0			0	27,268
S	R	RDSBUP153	Upgrade SCADA/RTU Capability	12/31/2012	1	0	0	0			0	0
S	R	RDSBUP165	Bay Reg - Substation SPCC Plans	7/1/2009	1	22,195	-18,335	-3,860			0	0
S	R	RDSBUP183	Bay Region Purchase 69/12kV Mobile Unit	5/31/2010	1	0	0	0			0	0
S	R	UDLBMS5D	Bay DE: Removal & Salvage of Capital Equip	12/30/2013	1.01	0	0				11,735	11,735
S	R	UDLBOSV5D	Bay DE: Salvage Scrap Wire/Cable	12/30/2013	1.01	0	0				-76,007	-76,007
S	R	UDLBOSV5DE	Bay DE: Salvage Scrap Wire/Cable	12/30/2013	1.01	0	0				-361,108	-361,108
S	R	UDLBRACRD	BAY-DE - Accural for Reliability	12/31/2017	1.00	0	0				2,135,979	2,135,979
S	R	UDLBRCP2	Ches-Ply Lines - work for T1 Replac	12/31/2013	1	0	0	0			113,846	113,846
S	R	UDLBRDA1A	UF Distribution Automation Bay Region	12/31/2013	1	0	0	0			0	0
S	R											ok
S	R	UDLBRM21N	Bay Reg: Misc Reliability Improvements	12/31/2012	1	0	1,016	191,582	728,952	45,377		966,926
O	X	UDLBRM2M2	Bay MI - Misc Reliability Impvts	12/31/2015	1					5,074	35,907	40,981
O	X	UDLBRM3M1	Emergency Restoration Blanket - Millsboro	12/31/2013	1		1,657,497	2,276,450	2,752,585	2,181,352	2,143,782	11,011,666
S	R	UDLBRM4E	Bay Reg: Deteriorated / Reject Pole Replac	12/31/2013	1	0	73,692	180,586	201,497	48,133	145	504,053
S	R	UDLBRM4F	Bay Reg: Priority Ckt Improvements	12/31/2013	1	0	366,235	706,600	219,136	192,921		1,484,893

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S	R	UDLBRM4H	Bay Reg. Avain Protection Improvements	12/31/2013	1		0	0	0	0	0	0	0	0	0	0	0
S	R	UDLBRM4K	Bay Reg. Priority Fdr Rebuild	12/31/2013	1		0	0	184,824	0	0	0	0	0	0	0	184,824
S	R	UDLBRM4M	Customer Reliability Improvements-Bay Reg	12/31/2013	1		0	0	72,539	7,056	129,807	126,368	335,770				
S	X	UDLBRM4MA	Millsboro - Misc Dist Improvement Blanket	12/31/2013	1		0	0	532,150	1,140,134	1,423,116	869,427	4,475,941				
S	R	UDLBRM4MC	Millsboro - Replaces Deteriorated URD Cable	12/31/2013	1		0	0	439,472	808,969	1,084,073						ok
S	R	UDLBRM4MD	Millsboro - Planned URD Cable Replacement	12/31/2013	1		0	0	907,535	960,316	1,361,058						ok
S	I	UDLBRM4ME	Millsboro - Distribution Pole Repl	12/31/2012	1		0	0				29,247	118,215				ok
S	I	UDLBRM4MJ	Millsboro District - Recloser Replacement	12/31/2013	1		0	0	166,893	266,769	43,932	92,623	1,278,124				
S	R	UDLBRM4MM	Customer Reliability Improvement - Millsboro	12/31/2015	1		0	0				408,039	995,384				
S	R	UDLBRM4MU	MI - Replac URD Secondary Cables	12/31/2013	1		0	0	672,837	1,208,637			1,881,474				
S	R	UDLBRM4MW	MI - Instal Tree Wire/Spacer Cable	12/31/2013	1		0	0					6,501				
S	R	UDLBRM5MA	IR: Millsboro - URD Infrastructure Replacements	12/31/2013	1		0	0	729,161	125,506			854,667				ok
S	I	Pri 3															ok
S	I	ND12															ok
S	I	Pri 3															ok
S	I	ND12															ok
O	R	UDSBRD7I	Bay Dist Substation Emergency Repalcements	12/31/2013	1		0	0	13,626	48,260	179,278		241,164				
O	R	UDSBRD7ID	Bay Dist Sub Emergency - DE	12/31/2015	1		0	0				203,191	331,470				
S	I	UDSBRD8A	Bay Dist Sub Planned Improvements	12/31/2013	1		0	0	0	0	-2,491		-2,491				
S	I	UDSBRD8AD	Bay Dist Sub Planned Improvements DE	12/31/2013	1		0	0	0	0			92,675				
S	R	UDSBRD8B	Dist Miscellaneous Relay Blanket - Bay	12/31/2013	1		0	0	0	0	0		0				
S	R	UDSBRD8BD	Dist Miscellaneous Relay Blanket - Bay DE	12/31/2013	1		0	0	0	0			12,543				
S	R	UDSBRD8C	Bay Distribution Substation Breaker Replacement	12/31/2012	1		0	0	0	0	0		0				
S	R	UDSBRD8E	Bay Distribution Substation Battery and Charger Replacement	12/31/2013	1		0	0	420	19,228	18,568		38,216				
S	R	UDSBRD8ED	Bay Dist Sub Battery & Charger Repl - DE	12/31/2015	1		0	0					89,315				
S	R	UDSBRD8F	Bay Distribution Substation Bushing Replacements	12/31/2013	1		0	0	5,195	0	5,014		10,209				
S	R	UDSBRD8FD	Bay Distribution Substation Bushing Replacements DE	12/31/2013	1		0	0		0			44,978				
S	I	UDSBRD8G	Bay Distribution - PHI Spare Transformers	5/31/2011	1		0	0	1,175,958	189,794	758,462	19,430	2,143,644				
S	I	UDSBRD8H	BAY - PHI Mobile Transformers	5/31/2012	1							54,925	54,925				
S	I	UDSBRD8I	Bay Region Puchase Mobile Transformer 2011	12/31/2012	1							0	0				
S	R	UDSBRD8ID	Bay DE: Roof Replac	12/31/2013	1		0	0	0		0		148,223				

[illegible]

RDLNEMG1	Emergency Restoration Blanket-Christiana	12/31/2008	1	7,453,015	59,109	42,228	-200			7,554,152
RDLNIR13	Christiana District: Replace #2 ACSR Primary with 477 ACSR	12/30/2006	1	0	0					0
RDLNIR14	N. Wilmington Sub: Convert 4kV to 12kV	12/30/2008	0.03	114,816	0					114,816
RDLNIR15	IR: Rogers Road Sub: Convert 4kV to 12kV	12/30/2008	0.03	0	0					0
RDLNIR27	Christiana - Planned URD Cable Replacements	12/31/2012	1	-4,542	0					-4,542
RDLNIR29	IR: Christiana - URD Infrastructure Repalcements	12/31/2008	1	0	0					0
RDLNMS1	CH- District Misc. Improvement Blanket	12/31/2012	1	1,702,791	998,855	-16,035	-5,026			2,680,585
RDLNUP56	Tenth Street Sub: Convert 4kV to 12kV	6/15/2009	2	-455	0	390,993	1,672			392,210
RDLNUP121	Christiana - Replace Failed Cable	12/31/2012	0.25	660,910	254,500	125,016	3,408	10,750		1,054,584









S	R
S	R
S	R
S	R
S	R

UDSNRDA1	UF NC Region Distribution Automation	12/31/2014	1	0	0	726,151	0	726,151	0k
UDSNRDA2	UF Inland ASR Computer	12/31/2015	1	0	0		0		0k
									0k
UDSNRD9Y	IR: NC Repl Deter Structures Dist Subs	12/31/2014	1			107,986		107,986	
									0k
				11,316,304	15,641,488	17,081,675	25,379,868	29,051,903	118,307,241

15,738,278    23,562,456    25,875,467    29,035,523    29,901,140    36,975,622

C	txtP	txtPFID	txtPF	Project Name	Short Description

S	R		IDBIR37	Frankford: Upgrade Feeder Exit Cables	ISD	tP	2007	2008	2009	2010	2011	2012	TOTAL
S	P	A- Pri 2 AD47	RDLBP14	Millsboro - Distribution VAR Correction	12/31/2008	I	15,376	169,258					184,634
S	I		RDLBUP32	Greenwood-Convert to 25kV & Tie to Harrington 2229	5/31/2004	0.05							30,784
S	P		RDLBUP33	Millsboro District-Dist VAR Correction	5/31/2005	1.9							0
S	I		RDLBUP66	MI- Five Pts-Midway: Upgrade	12/31/2009	I							0
S	I		RDLBUP108	Kent - Re conductor 13,000 feet of circuit 2233	5/31/2006	I	-342						-342
S	I		RDLBUP113	Five Points - Re conductor Ckt. 528 to 1200A	5/31/2007	I	133,473						133,473
S	I		RDLBUP138	Kent-Build new 600A 25kV Circuit	5/31/2006	I	9,800						9,800
S	R		RDLBUP142	Kent-Circuit 2228 Recloser and Regulator	5/31/2008	I	88,125	4,830					92,955
S	I		RDLBUP144	Nelson Circuit 514 - Re-conductor 4000 ft.	6/15/2007	I	236,394						236,394
S	I		RDLBUP185	Felton: R/C willow Grove Rd	12/31/2008	I	31,042	422,206	8,905				462,153
S	I		RDSBUP29	Kent T1 Upgrade	5/31/2006	I							0
S	I		RDSBUP48	Bridgeville - Install 69/12kV, 28MVA Xfmr & upgrade feed	5/31/2006	1.28	11,926						11,926
S	I		RDSBUP53	Midway-Rebuild 69/12kV Station	5/31/2005	1.03							0
S	I		RDSBUP145	Kent-Upgrade Circuit 2233 Terminal to Rating	5/31/2006	1.79							0
S	I		RDSBUP166	Kent-Breaker/Switch Work for new 25kV Circuit	5/31/2006	I			-8,651				-8,651
S	I	BID5 TBD	RDSBUP167	Magnolia Area2 30/25kV Substation-Purchase Property	5/31/2009	I	11,271	12,989	1,093,318	9,038			1,126,616
S	P		RDLBP11	Install Distribution Capacitors for RTEP	5/31/2009	I	132,247	43,058	-1,250	-7,595			166,461
S	P	NDIO	UDLBN7	Install Distribution Capacitors for RTEP	5/31/2009	I			0	0			0
S	I		UDLBN7I	Cedar Neck to Rehoboth Distribution Relocation	5/31/2008	I		1,078,833					1,078,833
S	P		UDLBPN9SA	Millsboro-Zoar: Relocate Dist for Trans Line Work	12/31/2008	I		151,815					151,815
S	P		UDLBPCS1	Harberson - Lank Distribution	12/31/2010	I				153,279			153,279
S	P		UDLBPN79A	Bethany 138kV Sub: Install Station Service	12/31/2010	I				199,813			199,813
S	I		UDLBPN7B	Cool Springs: Install 3-Phase Service to Substation	12/31/2010	I				102,466			102,466
S	I		UDLBPN7C	Five Points to Lank: Relocate Distribution	5/31/2011	I					454,363		454,363
S	I		UDLBPN7DD	Underbuilt Distribution Rebuilds: Bay DE	5/31/2011	I					2,051		2,051
S	I		UDSBPN79A	Bethany - Establish 138/12kV 50MVA Transformer	5/31/2010	I			312,022	3,957,402			4,269,424
S	I												3,803,289 OK
S	I	NDIO											
S	I	AD50	UDLBLM7M17	Millsboro 2271: Install Reclosers	5/31/2009	I	0	0					0

[illegible]

[illegible]

S	I	AD47	A- Pri 2	UDLNLM7C.7	Cedar Creek DE2500: Feeder Reconfiguration	5/31/2008	1	0	0						0
S	I	AD47	A- Pri 2	UDLNLM7C.8	Edgemoor Plant: Transfer DE0202 & DE0218 to T6 138/12k	5/31/2008	1	0							0
S	I	AD47	A- Pri 2	UDLNLM7C.9	Naamans DE0280 : R/C 100ft of 1/0 ALURD_15 Cable	5/31/2008	1	0							0
S	I	ND16	TBD	UDLNLM7P1	Mt. Pleasant Sub: Move Feeder 2542 to new 138/25kV Trans	5/31/2009	1	0	0	28,541	5,406				33,947
S	I														ok
S	I			UDSNLM78D	Cedar Creek: Add 25kV Breaker for 2nd Circuit	5/31/2009	1.01	0	0						0
S	I			UDSNLM78E	Edgemoor Switchyard: Install New 69/12kV transformer	5/31/2009	1.01	0	657,606	4,581,922	22,645				5,262,173
S	I	ND9	ping, Mike												ok
S	I	ND16	TBD	UDSNLM7P1	Mt. Pleasant Sub: Add 2nd 138/25kV Transformer	5/31/2009	1.01	6,593	64,879	3,261,049					3,332,521
								709,654	1,631,755	9,642,710	1,762,684	28,080	513,949		14,288,834
															0
								1,407,332	4,727,845	13,386,180	6,430,569	482,443	516,000		26,950,369

Items		Project ID		Budget		Type of		Actual Dollars	
				FERC Area	Category	Project		State	Region
									2013 (\$)
Bay DE - Repl	UDLBCMVD			Distributor	Customer Drive Line			DE	Bay
Bay DE Transr	UDLBCSOLD			Distributor	Customer Drive Line			DE	Bay
Bay Region De	UDSBCSOLD			Distributor	Customer Drive Substation			DE	Bay
Christiana - Fa	UDLNC3C			Distributor	Customer Drive Line			DE	New Castk
Christiana - Hig	UDLNC3C			Distributor	Customer Drive Line			DE	New Castk
Christiana - Ne	UDLNC3C			Distributor	Customer Drive Line			DE	New Castk
Christiana - Re	UDLNC3C			Distributor	Customer Drive Line			DE	New Castk
DE - NEW LO	UDLNCACRD			Distributor	Customer Drive Line			DE	New Castk
DPL Reg: New	UDLNCACCR			Distributor	Customer Drive Line			DE	New Castk
Mercury Vapor	UDLNCMVD			Distributor	Customer Drive Line			DE	New Castk
Meter Blanket	UDLNCMR2			Distributor	Customer Drive Line			DE	New Castk
Meter Blanket	UDLNCMR2D			Distributor	Customer Drive Line			DE	New Castk
Meter Blanket	UDLNCMR1			Distributor	Customer Drive Line			DE	New Castk
MI- Facility Rel	UDLBCS3M			Distributor	Customer Drive Line			DE	Bay
MI- New Serv	UDLBCS1M			Distributor	Customer Drive Line			DE	Bay
Millsboro - Hig	UDLBC3H0M			Distributor	Customer Drive Line			DE	Bay
MI-Residential	UDLBCS2M			Distributor	Customer Drive Line			DE	Bay
Customer Care									3,408,389

Bear DE0752: UDLNLM7C.11 Distributor Load Driven Line DE New Castk-

Underbuilt Dist	UDLBPN7DD			Distributor	PJM/RTEP			DE	Bay	22,831
CHRISTIANA I	UDLNL7C			Distributor	Load Driven			DE	New Castk	0
CHRISTIANA -	UDLNL7C.10			Distributor	Load Driven			DE	New Castk	-
MERMAID DE	UDLNL7C.17			Distributor	Load Driven			DE	New Castk	-
Install Dist. Re	UDLNL7C.2			Distributor	Load Driven			DE	New Castk	-
Distribution Lin	UDLNPBC1			Distributor	PJM/RTEP			DE	New Castk	86,238
Brandwine to E	UDLNPBC2			Distributor	PJM/RTEP			DE	New Castk	2,866
Cedar Neck St	UDSBLM76A			Distributor	Load Driven			DE	Bay	0
Future Project	UDSBLM7D			Distributor	Load Driven			DE	Bay	-
Magnolia Area	UDSBLMG2			Distributor	Load Driven			DE	Bay	-
Midway Subste	UDSBLMW1			Distributor	Load Driven			DE	Bay	-

111,935



NC-DE Future UDSNLM7D		Distributor Load Driven	Substation	DE	New Castlk -	0
		Load			111,935	
12kV ACB Ref UDSNRD9K	Distributor Reliability Drive Substation	DE	New Castlk -			
BAYDERemov UDLBMS5D	Distributor Reliability Drive Line	DE	Bay	6,464		
Bay DE Reg: S UDLBOSV5DE	Distributor Reliability Drive Line	DE	Bay	-79,658		
BAY-DE - Accu UDLBRACRD	Distributor Reliability Drive Line	DE	Bay	0		
Distribution Au UDLBRDA1D	Distributor Reliability Drive Line	DE	Bay	-		
Emergency Re UDLBRM3M1	Distributor Reliability Drive Line	DE	Bay	420,012		
Millsboro Misc. UDLBRM4MA	Distributor Reliability Drive Line	DE	Bay	111,218		
Millsboro Distri UDLBRM4ME	Distributor Reliability Drive Line	DE	Bay	0		
Millsboro Aviar UDLBRM4MH	Distributor Reliability Drive Line	DE	Bay	0		
Millsboro Distri UDLBRM4MJ	Distributor Reliability Drive Line	DE	Bay	15,411		
Customer Reli: UDLBRM4MM	Distributor Reliability Drive Line	DE	Bay	57,807		
Millsboro - Pac UDLBRM4MO	Distributor Reliability Drive Line	DE	Bay	-		
Millsboro - Upc UDLBRM4MQ	Distributor Reliability Drive Line	DE	Bay	0		
Bishop Substa UDLBRM4RC	Distributor Reliability Drive Line	DE	Bay	228,840		
NERC Line Up UDLBRM5MD	Distributor Reliability Drive Line	DE	Bay	-		
IR: Millsboro - UDLBRM5MZ	Distributor Reliability Drive Line	DE	Bay	-		
NERC Line Up UDLBRM5ND	Distributor Reliability Drive Line	DE	Bay	0		
Distribution Tr UDLNMS3D	Distributor Reliability Drive Line	DE	New Castlk	0		
NC DE Remov UDLNMS5D	Distributor Reliability Drive Line	DE	New Castlk	9,846		
NC DE Reg: S UDLNOSV5D	Distributor Reliability Drive Line	DE	New Castlk	0		
NC-DE - Accru UDLNRACRD	Distributor Reliability Drive Line	DE	New Castlk	-8,472,111		
Emergency Re UDLNRM3C1	Distributor Reliability Drive Line	DE	New Castlk	3,847,026		
Misc. Improver UDLNRM4CA	Distributor Reliability Drive Line	DE	New Castlk	962,534		
Christiana Dist UDLNRM4CE	Distributor Reliability Drive Line	DE	New Castlk	229,314		
Christiana Avie UDLNRM4CH	Distributor Reliability Drive Line	DE	New Castlk	0		
Replace Line F UDLNRM4CJ	Distributor Reliability Drive Line	DE	New Castlk	110,675		
Customer Reli: UDLNRM4CM	Distributor Reliability Drive Line	DE	New Castlk	196,682		
Christiana: Pa UDLNRM4CO	Distributor Reliability Drive Line	DE	New Castlk -			
Christiana: Up UDLNRM4CQ	Distributor Reliability Drive Line	DE	New Castlk	0		
Wilmington Ne UDLNRM4CR	Distributor Reliability Drive Line	DE	New Castlk	-8,054		
Install tree wire UDLNRM4CU	Distributor Reliability Drive Line	DE	New Castlk -			

NC Region : P	UDLNRM4K	Distributor Reliability Drive Line	DE	New Castk -	
NERC Line Up	UDLNRM4MD	Distributor Reliability Drive Line	DE	New Castk -	
Rogers Road	UDLNRM5BA	Distributor Reliability Drive Line	DE	New Castk	0
EDGE MOOR	UDLNRM5BC.1	Distributor Reliability Drive Line	DE	New Castk -	
NERC Line Up	UDLNRM5ND	Distributor Reliability Drive Line	DE	New Castk	0
Christiana Sub	UDLNRM5SC	Distributor Reliability Drive Line	DE	New Castk	1,633,700
DE0217 Recor	UDLNRM5SD	Distributor Reliability Drive Line	DE	New Castk	114,619
Cable Replace	UDLNRM5SE	Distributor Reliability Drive Line	DE	New Castk	236,958
Rebuild OH Re	UDLNRM8SE	Distributor Reliability Drive Line	DE	New Castk	0
Churchmans -	UDLNRM8SH	Distributor Reliability Drive Line	DE	New Castk	0
Wilmington St	UDLNRM9SB	Distributor Reliability Drive Line	DE	New Castk	27,361
MILLTOWN RI	UDLNRM7T1	Distributor Reliability Drive Line	DE	New Castk	0
Bay Dist. Sub.	UDSBRD71D	Distributor Reliability Drive Substation	DE	Bay	0
Bay Dist Sub F	UDSBRD8AD	Distributor Reliability Drive Substation	DE	Bay	0
Bay Dist Sub F	UDSBRD8BD	Distributor Reliability Drive Substation	DE	Bay	17,072
Laurel - DPU F	UDSBRD8DD	Distributor Reliability Drive Substation	DE	Bay	637
Bay Dist. Subs	UDSBRD8ED	Distributor Reliability Drive Substation	DE	Bay	53,779
Bay Dist. Subs	UDSBRD8FD	Distributor Reliability Drive Substation	DE	Bay	9,320
Bay Distributic	UDSBRD8G	Distributor Reliability Drive Substation	DE	Bay	293,557
Bay DE - Purcl	UDSBRD8G2D	Distributor Reliability Drive Substation	DE	Bay	0
Bay Region DE	UDSBRD8G3D	Distributor Reliability Drive Substation	DE	Bay	0
Bay Region DE	UDSBRD8G4D	Distributor Reliability Drive Substation	DE	Bay	0
Bay-Replace C	UDSBRD8ID	Distributor Reliability Drive Substation	DE	Bay	0
Upgrade SCAL	UDSBRD8MD	Distributor Reliability Drive Substation	DE	Bay	0
Surplus Dist S	UDSBRD8PD	Distributor Reliability Drive Substation	DE	Bay	0
Greenwood S	UDSBRD8RB	Distributor Reliability Drive Substation	DE	Bay	0
Wyoming Sub	UDSBRD8RG	Distributor Reliability Drive Substation	DE	Bay	0
Physical Secur	UDSBRD8VD	Distributor Reliability Drive Substation	DE	Bay	158
Replace Deteri	UDSBRD9DD	Distributor Reliability Drive Substation	DE	Bay	52,316
Replace aging	UDSBRD9GD	Distributor Reliability Drive Substation	DE	Bay	-
North Seaford	UDSBRD9SG	Distributor Reliability Drive Substation	DE	Bay	0
Sussex - Repl	UDSBRD9SX1	Distributor Reliability Drive Substation	DE	Bay	0
Bay Replace C	UDSBRD9YD	Distributor Reliability Drive Substation	DE	Bay	-
Bay Region Re	UDSBRD9ZD	Distributor Reliability Drive Substation	DE	Bay	-
Bay: DE Dist S	UDSBRM61D	Distributor Reliability Drive Substation	DE	Bay	-
New Castle Su	UDSNRD71	Distributor Reliability Drive Substation	DE	New Castk	-33,188
NC - DE SUBS	UDSNRD71D	Distributor Reliability Drive Substation	DE	New Castk	57,118
Substation Pla	UDSNRD8A	Distributor Reliability Drive Substation	DE	New Castk -	
NC - DE Subst	UDSNRD8AD	Distributor Reliability Drive Substation	DE	New Castk	556
NC DE Dist Mi	UDSNRD8BD	Distributor Reliability Drive Substation	DE	New Castk	0
NC DE: Dist S	UDSNRD8ED	Distributor Reliability Drive Substation	DE	New Castk	0
NC DE: DIST	UDSNRD8FD	Distributor Reliability Drive Substation	DE	New Castk	7,003

New Castle Pt UDSNRD8G	Distributor Reliability Drive Substation	DE	New Castk	131,733
New Castle - F UDSNRD8G1	Distributor Reliability Drive Substation	DE	New Castk	13,225
Christiana Sub UDSNRD8GD	Distributor Reliability Drive Substation	DE	New Castk	185,172
NC Reg: 15kv UDSNRD8K	Distributor Reliability Drive Substation	DE	New Castk -	
DPL DE - Swit UDSNRD8KD	Distributor Reliability Drive Substation	DE	New Castk -	
NC Reg: Misc UDSNRD8P	Distributor Reliability Drive Substation	DE	New Castk -	
IR NC DE: Disl UDSNRD8PD	Distributor Reliability Drive Substation	DE	New Castk	0
North Wilmingl UDSNRD8RA	Distributor Reliability Drive Substation	DE	New Castk -	
Tenth Street S UDSNRD8RC	Distributor Reliability Drive Substation	DE	New Castk	2,858
CHURCHMAN UDSNRD8SA	Distributor Reliability Drive Substation	DE	New Castk	0
SILVERBROO UDSNRD8SE	Distributor Reliability Drive Substation	DE	New Castk	333,712
Chapel Street : UDSNRD8SI	Distributor Reliability Drive Substation	DE	New Castk	0
NERC Physica UDSNRD8VD	Distributor Reliability Drive Substation	DE	New Castk	9,767
IR Roger Roac UDSNRD9A	Distributor Reliability Drive Substation	DE	New Castk -	
NC DE: Break UDSNRD9DD	Distributor Reliability Drive Substation	DE	New Castk	172,832
IR: NC DE DIS UDSNRD9FD	Distributor Reliability Drive Substation	DE	New Castk	28,387
Replace Deteri UDSNRD9G1	Distributor Reliability Drive Substation	DE	New Castk -	
NC DE SUBS: UDSNRD9HD	Distributor Reliability Drive Substation	DE	New Castk	17,243
Naamans Sub: UDSNRD9KC	Distributor Reliability Drive Substation	DE	New Castk -	
Mermaid Subs UDSNRD9KD	Distributor Reliability Drive Substation	DE	New Castk -	
West Wilmingt UDSNRD9KE	Distributor Reliability Drive Substation	DE	New Castk -	
Churchmans S UDSNRD9KF	Distributor Reliability Drive Substation	DE	New Castk -	
Milltown Subst UDSNRD9KG	Distributor Reliability Drive Substation	DE	New Castk -	
Sunset Lake S UDSNRD9KH	Distributor Reliability Drive Substation	DE	New Castk -	
Talleyville Sub UDSNRD9K1	Distributor Reliability Drive Substation	DE	New Castk -	
Edge Moor Sul UDSNRD9SE	Distributor Reliability Drive Substation	DE	New Castk	369
Brookside Sub UDSNRD9SH	Distributor Reliability Drive Substation	DE	New Castk	1,337,932
Millford Crossr UDSNRD9SJ	Distributor Reliability Drive Substation	DE	New Castk	329,133
West Sub. Re UDSNRD9SK	Distributor Reliability Drive Substation	DE	New Castk	116,217
West Sub. Re UDSNRD9SL	Distributor Reliability Drive Substation	DE	New Castk	0
Kiamensi T2: F UDSNRD9SM	Distributor Reliability Drive Substation	DE	New Castk	0
Talleyville T2: I UDSNRD9SN	Distributor Reliability Drive Substation	DE	New Castk -	
IR: NC Repl D: UDSNRD9Y	Distributor Reliability Drive Substation	DE	New Castk -	
IR: NC-DE Repl UDSNRD9YD	Distributor Reliability Drive Substation	DE	New Castk -	
NC DE Repl D: UDSNRD9ZD	Distributor Reliability Drive Substation	DE	New Castk	0
UF NC Region UDSNRDA1	Distributor Reliability Drive Substation	DE	New Castk -	
Milltown: Mov UDSNRMT2	Distributor Reliability Drive Substation	DE	New Castk	0
Reliability				2,785,554
Total Distribution				6,305,878

PSC DOCKET NO. 13-115  
DELAWARE PUBLIC SERVICE COMMISSION STAFF  
FOLLOW UP SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No.: PSC-REL-7

Please provide a copy of the Reliability Enhancement Plan (REP) for (a) PHI, (b) total Delmarva and (c) Delmarva Delaware that was in effect and provided the framework for the company's analysis and selection of the 2012 and 2013 REP projects listed in Attachment A to AG-REL-3.

RESPONSE:

- (a) REPs are developed for each individual utility, not at the holding company level.
- (b) Delmarva objects to use of the Maryland REP on the grounds that it is irrelevant. Without waiving any objections, see PSC-REL-7 Attachment.
- (c) AG-REL-3 Attachment A defines the REP in Delmarva's Delaware Reliability Enhancement Plan.

Respondent: Michael W. Maxwell

PSC DOCKET NO. 13-115  
DELAWARE PUBLIC SERVICE COMMISSION STAFF  
FOLLOW UP SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No.: PSC-REL-10

Please refer to the lists of "REP" projects in AG-REL-3 Attachment A and "non-REP" projects in AG-REL-3 Attachment B. Many projects on the non-REP list have descriptions similar to those on the REP list (e.g., distribution automation, URD cable replacement, priority circuit improvement).

- (a) Please clarify what factors and criteria the company uses to designate which of seemingly similar project types should be considered REP versus non-REP.
- (b) Which projects on the 2012 REP project list would otherwise be performed as a non-REP project in a future year?
- (c) Please explain how the company capital project identification, analysis and planning processes differ in order to separately distinguish projects considered to be REP versus non-REP.
- (d) Please describe the criteria used to select candidates for each project group (e.g., URD) and the process and values used to create the cutoff point each year.
- (e) Please describe the follow-up process used to determine if the expected reliability improvement by each project was achieved.
- (f) Please provide any analysis of the original estimated cost versus actual costs for REP and non-REP projects.

RESPONSE:

- a. See response to PSC-REL-8 a.
- b. None.
- c. See response to PSC-REL-8 b.
- d. See response to AG-REL-65.
- e. Delmarva tracks its monthly reliability performance to determine if reliability improvements have been achieved. See AG-REL-19 Attachments A-D.
- f. See AG-GEN-1 Attachments A and C.

Respondent: Michael W. Maxwell

PSC DOCKET NO. 13-115  
DELAWARE PUBLIC SERVICE COMMISSION STAFF  
FOLLOW UP SET OF RELIABILITY DATA REQUESTS  
TO DELMARVA POWER & LIGHT COMPANY

Question No. : PSC-REL-29

PHI filed a report with the Maryland Public Service Commission in Case No. 9298 titled "Short Term Enhancement Plans for Potomac Electric Power Company and Delmarva Power & Light Company and Comments on the Recommendations on the Report of the Grid Resiliency Task Force," dated May 31, 2013. Please provide documents or analyses that similarly delineate the same issues in that report but for Delmarva's Delaware territory.

RESPONSE:

The requested analysis has not been performed.

Respondent: Michael W. Maxwell